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"Studies serve for delight, for ornament, and ability. * * * There is no stond or impediment in the wit,
but may be wrought out by fit studies."—*Lord Bacon.*

A TREATISE

ON

HARMONY

BY

CHARLES SIMON CATEL,

MEMBER OF THE CONSERVATOIRE DE MUSIQUE AT PARIS.

BIBLIOTHECA BODLEIANA

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ADOPTED IN THE CONSERVATOIRE AT PARIS, FOR THE STUDY OF THE PUPILS THERE.

BIOGRAPHICAL NOTICE OF CATEL.

Charles Simon Catel, born at l'Aigle, in the month of June, 1773, repaired, when quite young, to Paris, where he devoted himself entirely to the study of music. Sacchini, who took much interest in him, caused him to enter the Royal School for Singing and Declamation, founded, in 1783, by Papillon de la Ferté. Catel there studied the piano, under the direction of Gobert, and of Gossec, who, taking a great liking to him, gave him lessons in harmony and composition. In a short time, he became well skilled in harmony, and in all the branches of the art of writing music. Towards the middle of 1787, he was appointed accompanyist and assistant professor in this same school. In 1790, the directors of the Opera selected him for accompanyist at the theatre; and he retained this situation until 1802, when more important avocations compelled him to resign it. It was in the year 1790, that the band of music of the National Guard was organized under the auspices of Mons. Sarette, who subsequently founded the Conservatoire de Musique, and became its director. The intimate friendship which already subsisted between himself and Catel, determined Mons. Sarette to furnish him with means of displaying his talent, by engaging him in this band as assistant musical director, in conjunction with his master, Gossec. Catel fulfilled the duties of his office by writing a large number of marches and quick movements, which were generally adopted by the French regiments during the wars in the time of the revolution. The first production which marked the talent of Catel for great works was a *De Profundis*, performed in 1702, on the occasion of the funeral honors paid by the National Guard to their major-general, Gouvion.

In the third year of the Republic (1795), when the Conservatoire de Musique was organized, Catel was appointed professor of harmony there. This establishment was hardly completed, ere the views of those distinguished professors, who formed its staff, were directed to the necessity there existed for fixing the basis of a system of instruction, and for compiling elementary works in all branches of the art. Each had his portion of these productions, in consonance with his specific studies; and, according to this arrangement, Catel was entrusted with the compilation of a Treatise on Harmony. The work was proposed amidst an assemblage of ten professors; was adopted; and appeared in the tenth year (1802). This book has been, during a period of twenty years, the sole authority with professors of harmony in France.

From the commencement of the Conservatoire at Paris, Gossec, Mehul, and Cherubini were inspectors there; in 1810, a fourth place of this kind was appointed, and Catel was the one chosen to occupy the post. He did not long enjoy the advantages of this new position; for, the events of 1814 having deprived Mons. Sarette of the administration of the Conservatoire, his friend chose to follow him in his retreat, and sent in his resignation. "Since then," (says Mons. Fétis, writing in 1837,) "he has declined all the situations that have been offered him; his nomination as member of the French Institute, in 1815, being the only one he has accepted. In 1824, he was made Chevalier of the Legion of Honor, without having taken a single step for obtaining the favor."

A strong party existing against the strict school in musical art, of which the Conservatoire was looked upon as the centre, Catel's dramatic productions met with slender success from the Parisian public, and brought their author little fame and less profit. After composing eleven operatic pieces, between the years 1802 and 1819, Catel retired from public life, wrote no more, derived his chief pleasure from encouraging talent in young rising artists, and passed the greater part of each year in a country house he possessed, a few leagues from Paris. Catel composed a variety of instrumental pieces; overtures, military marches, quintetts, quatuors, sonatas for piano-forte, a symphony, several national songs and civic romances, and took large part in the compilation of the "*Solfeggi of the Conservatoire*," of which a second edition was published in 1815, for which he wrote a methodical detail of the principles of music; but the work on which his reputation will chiefly rest, is incontestably his "Treatise on Harmony."

"However excellent the talents of Catel," (proceeds Mons. Fétis,) "they formed only one portion of his title to the esteem—I may say—to the veneration, of those who knew him. To an understanding the most just and clear, to a gift of observation the most discerning, he joined a probity the most strict, together with all the qualities belonging to the purest of natures. For the space of forty years, his friendship, his gratitude towards Mons. Sarette, who had supported him with his utmost influence throughout his career, never for an instant abated; while his benevolence on behalf of young musicians who sought his counsel and assistance, knew no limit."

RESOLUTIONS, PASSED BY THE CONSERVATOIRE DE MUSIQUE, WITH RESPECT TO THE ADOPTION OF CATEL'S TREATISE ON HARMONY.

Commission charged with the compilation of a Treatise on Harmony.

The 11th floreal (1st May),
Ninth year of the Republic (1801).

According to the rules of the Conservatoire, a special commission, consisting of citizens Berton, Catel, Cherubini, Eler, Framery, Gossec, Lacépède, Langlé, Lesueur, Martinj, Méhul, Prony, Rey, and Rodolphe, assembled on the 2nd nivose (22nd Dec.), ninth year of the Republic (1801), for the formation of a Treatise on Harmony, which should serve for instruction in the Conservatoire de Musique.

Several meetings having been dedicated to the consideration of different systems of Harmony, the Commission, on its meeting of the 10th ventose (29th Feb.), agreed to follow the system laid down by citizen Catel, member of the Commission.

On the 11th floreal (1st May), ninth year (1801), citizen Catel submits to the Commission, the definitive compilation of his Treatise on Harmony. After a critical examination of the work, the commission adopt it, and appoint citizen Méhul to make a report of it to the general assembly.

Signed by the members of the Commission,
Gossec, B. G. E. L. Lacépède, Cherubini,
Lesueur, Prony, Eler, Framery, Méhul,
Rey, Martinj, Berton, Rodolphe.

General Assembly of the Members of the Conservatoire.

The 15th floreal (5th May),
Ninth year of the Republic (1801).

Citizen Méhul, in the name of the Commission charged with the compilation of a Treatise on Harmony, declares:—

"That the Commission, after having consulted the best works upon Harmony, in order to confirm themselves from highest authority, or to contest errors consecrated by time, but which time should destroy, has audited the detail of three new systems submitted to its examination.

"The two first, diametrically opposite in theoretical principles, gave rise to discussions, both animated and valuable, but of which the result, while attesting the learning of the members of the Commission, failed in attaining the end proposed. Rameau's system was successively attacked and defended. The suffrages it obtained, did not gain over its opponents, who still objected to this theory its incomplete definitions, even while rendering justice to what it contains of true and important upon the creation and generation of the great family of chords.

"In the conflict of differing opinions, between the partisans and the antagonists of the system of FUNDAMENTAL BASS, the Commission, unable to discern the whole truth, suspended its judgment, until the work now submitted for your approval came to terminate all discussion, by offering a complete system, simple in its principles, and clear in its definitions.

"In order to make it known to the assembly, citizen Catel, its author, will address them after the perusal of the resolution of adoption, declared by the Commission in its meeting of the 11th floreal (1st May)."

Citizen Catel thereupon sets forth his system of Harmony; and after mature deliberation, the general assembly unanimously adopt it, according to the form prescribed by the Rules of the Conservatoire, for the instruction of the classes in this establishment.

Sarrette, *President.*

AUTHOR'S PREFACE.

So many different Treatises on Harmony having already been published, several of which enjoy a merited reputation, it may appear somewhat presumptuous to offer another to the Public, essentially varying from those generally accepted throughout France. I should therefore hardly have ventured to put forth this one, had not the Conservatoire, by adopting it, in some measure made its publication a duty.

I hold, that all the various systems have one and the same object, and that they merely differ from each other, in the means taken to effect it; in publishing mine, therefore, I do not seek to confute those which may be dissimilar.

I have undertaken this work, with a view to simplify, as much as possible, the elements of Harmony; I have sought to retrace it to its true origin, showing that in fact all discords are formed out of concords. I have reduced chords to a very small number; by giving the name of chord to those only which need no preparation, and which naturally exist in a sonorous body. I have divided harmony into two classes:—simple, or natural harmony; and compound, or artificial harmony.

Simple harmony comprises all chords that need no preparation. Compound harmony is founded upon simple harmony; it is formed by the suspension of one or more parts, which prolong one or more notes of a chord on to the following chord.* Every progression of simple harmony may become compound, by the means of prolongation; and every compound progression may become simple, by suppressing prolongation. It is evident, therefore, that simple harmony is the general foundation of every dissonant progression.

This method appears to me to unite the double advantage of teaching the real nature of every chord, at the same time that its use is learned. The pupils thus avoid the almost insurmountable difficulty of classing in their memory that numerous series of isolated chords, which, standing as so many different chords, render harmony arduous of comprehension, and still more arduous of practice.

If to this be added, that in the majority of Treatises on Harmony little more is taught than the name of the several chords, and the method of striking them on the clavier,† it will readily be seen, that after having learnt harmony by such means, the pupil remains a complete novice in the art of counterpoint; and that if he resolve upon mastering it, he will have to recommence the study of composition by the progression of concords, concerning which he knows nothing, although he may be acquainted with the name of every chord that exists.

I have therefore made it my object in this work to teach harmony by instilling the elements of counterpoint; and experience will prove whether my idea has been successfully executed.

---

* If the common chord, C, E, G, be followed by the common chord, F, A, C, the HARMONY is SIMPLE. If, on the second chord, the third of the first chord be prolonged, this prolongation will form a discord of the seventh on the common chord. If, on the second chord, the fifth of the first chord be prolonged, this prolongation will form a discord of the ninth on the common chord; and then the HARMONY is COMPOUND.

† These works are styled:—TREATISES ON ACCOMPANIMENT.

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CATEL'S

TREATISE ON HARMONY.

PRELIMINARY MATTER.

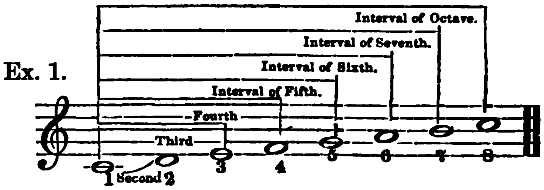
INTERVALS.

An interval is the distance which divides one note from another.

In harmony, intervals are counted from the lower to the upper part; and the bass being the lowest part, it is from thence that the intervals which form the chords are reckoned.

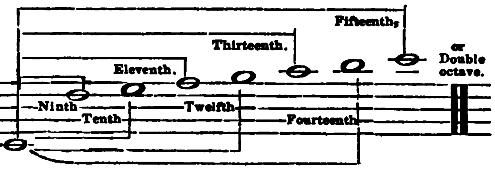
A scale includes the intervals of the second, third, fourth, fifth, sixth, seventh, and octave :—

Ex. 1.



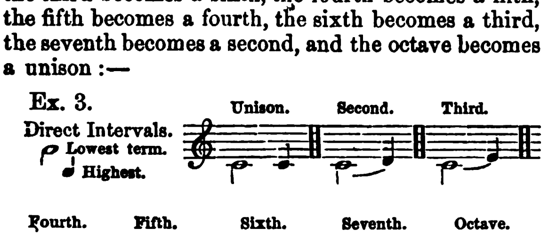
By doubling the intervals, those of the ninth, tenth, eleventh, twelfth, thirteenth, fourteenth, and fifteenth are found; forming the repetition of the others, from the octave upwards :—

Ex. 2.



By inverting the intervals,—that is to say, by transposing the lower to the higher,—the unison becomes an octave, the second becomes a seventh, the third becomes a sixth, the fourth becomes a fifth, the fifth becomes a fourth, the sixth becomes a third, the seventh becomes a second, and the octave becomes a unison :—

Ex. 3.



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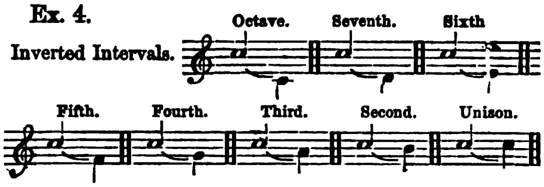


Each of these intervals presents itself under three different aspects.

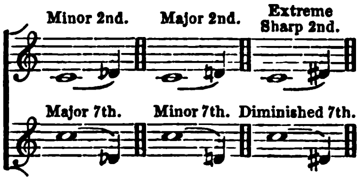
TABLE OF INTERVALS,

With their inversions, under the three different aspects.

Ex. 5.

There are three species of the second; viz., the minor, the major, and the extreme sharp.*

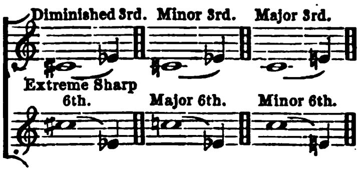
Their inversions form the major, minor, and diminished 7th.†



Ex. 6.

There are three species of the third; viz., the diminished, the minor, and the major.

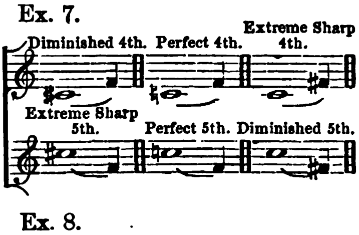
Their inversions form the extreme sharp, the major, and the minor 6th.



Ex. 7.

There are three species of the fourth; the diminished, the perfect, and extreme sharp.

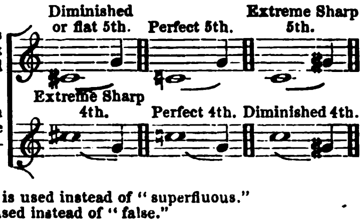
Their inversions form the extreme sharp, perfect, and diminished 5th.



Ex. 8.

There are three species of the fifth; the flat fifth, the perfect, and the extreme sharp.

Their inversions form the extreme sharp, the perfect, and the diminished 4th.



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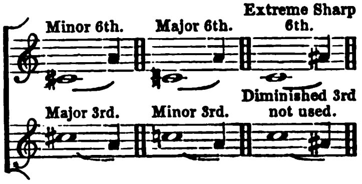
* "Extreme sharp" is used instead of "superfluous."

† "Diminished" is used instead of "false."

Ex. 9.

There are three species of the sixth; the minor, the major, and extreme sharp.

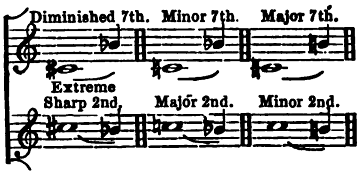
Their inversions form the major, minor, and diminished 3rd.



Ex. 10.

There are three species of the seventh; the diminished, minor, and major.

Their inversions form the extreme sharp, major, and minor 2nd.



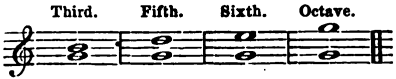
The unison and the octave do not alter.

Concords and Discords.

Intervals are divided into consonant intervals and dissonant intervals.

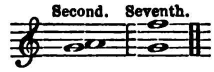
The consonant intervals, or concords, consist of the third, the fifth,* the sixth, and the octave:—

Ex. 12.



The dissonant intervals, or discords, consist of the second, and the seventh:—

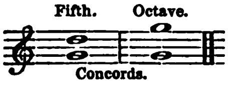
Ex. 13.



The concords are divided into perfect and imperfect concords.

The perfect concords consist of the fifth, and the octave:—

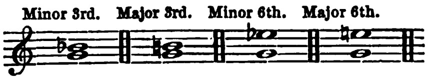
Ex. 14.



They are called perfect, because they cannot be altered without ceasing to be concords.†

The imperfect concords consist of the third, and the sixth:—

Ex. 16.



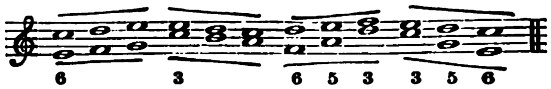
They are called imperfect, because they may be major and minor without ceasing to be concords.‡

Movement.

There are three kinds of movement; direct movement, oblique movement, and contrary movement.

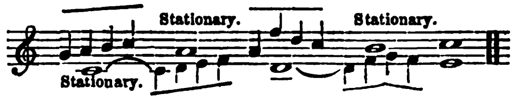
Direct movement is that which occurs when two parts ascend and descend at the same time:—

Ex. 17.



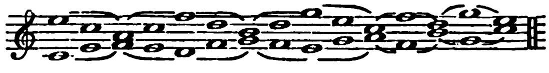
Oblique movement is that which occurs between two parts, when one of them remains stationary while the other ascends or descends:—

Ex. 18.



Contrary movement is that which occurs between two parts, when one of them ascends while the other descends:—

Ex. 19.

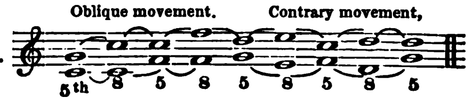


Oblique movement, and contrary movement (especially the latter), are those which offer the best resource, and the greatest richness of effect, in harmony.

Progression of Concords.

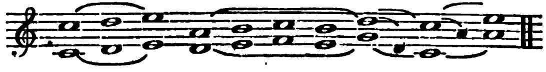
A succession of perfect concords can be used only in oblique movement, or in contrary movement:—

Ex. 20.



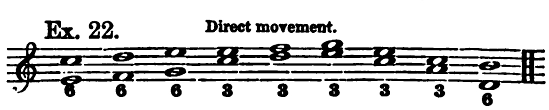
Perfect concords used in direct movement, will produce successive fifths and octaves, either direct or concealed; which should be carefully avoided:— §

Ex. 21.

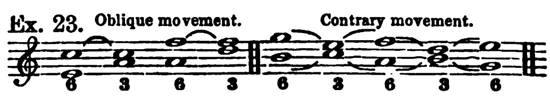


A succession of imperfect concords may be used in each of the three kinds of movement:—

Ex. 22.



Ex. 23.



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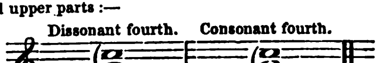
* The fourth, being an inversion of the fifth, should be considered as a concord; but its effect being much less agreeable than that of the fifth, it is regarded as a discord against the bass, and as a concord between the middle and upper parts:—

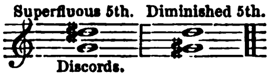
Ex. 11.



Nevertheless, the fourth is employed as a concord in the second inversion of the common chord; and moreover this inversion is the least agreeable, and the only one of which a succession is not permitted.

† Since the fifth cannot be altered without ceasing to be a concord, the diminished fifth and the superfluous fifth should be considered as dissonant intervals, or discords:—

Ex. 15.



‡ The third and the sixth being concords only when they are major and minor, the diminished third and the superfluous sixth should be considered as discords.

§ In three, or in four parts, concealed fifths and octaves are tolerated; in the middle parts, between concords only.

ARTICLE I.

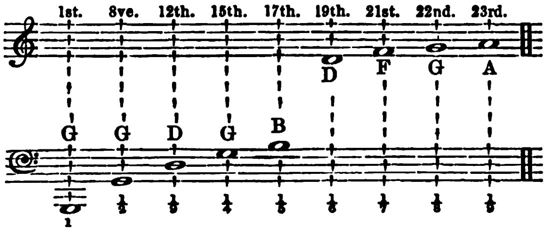
General Theory of the Chords.

In harmony, there is but one single chord, which contains all the others.

This chord is formed of the primary emanations from a sonorous body, or of the first divisions of the monochord.

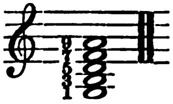
An entire string in its tension shall give out the sound of G. A half string gives a G at the octave of the 1st; a third of the string gives a D at the 12th; a fourth of the string gives a G at the double octave; a fifth of the string gives a B at the 17th; a sixth of the string gives a D, octave of the 3rd, or 19th above; a seventh of the string gives an F at the 21st; an eighth of the string gives a G at the triple octave; a ninth of the string gives an A at the 23rd:—

Ex. 24.



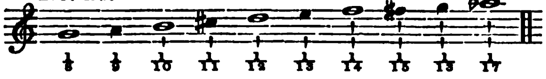
Thus, by setting out from the fourth of the string, or from the double octave of the first sound, there will be found, in a progression of thirds, the chord G, B, D, F, A:—

No. 25.

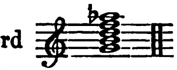


By commencing this operation at the triple octave, which is an eighth of the string, and by omitting the intermediate notes, the chord of G, B, D, F, A♭ will be found, which is the same chord as the preceding, but in the minor mode:—

No. 26.

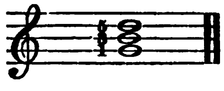


Ex. 27.

This chord  contains all those employed in harmony; namely:—

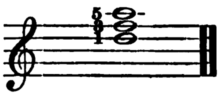
Major Common Chord.

Ex. 28.



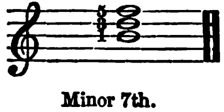
Minor Common Chord.

Ex. 29.



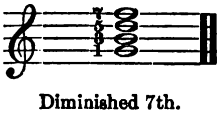
Imperfect Common Chord.

Ex. 30.



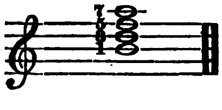
The Dominant 7th.

Ex. 31.



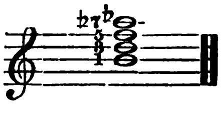
Minor 7th.

Ex. 32.



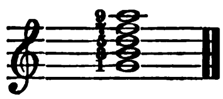
Diminished 7th.

Ex. 33.



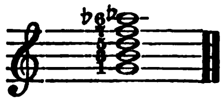
Major 9th.

Ex. 34.



Minor 9th.

Ex. 35.



These chords, and their inversions, are the only ones which can be given without preparation. They form what I call Simple or Natural Harmony.

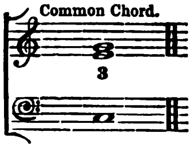
The other chords employed in Harmony are constructed by the prolongation of one or more notes of a chord on to the following chord. They form Compound Harmony.

ARTICLE II.

The Major Common Chord.

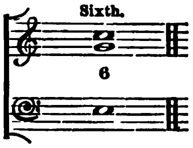
The major common chord consists of the major third and fifth.

Ex. 36.



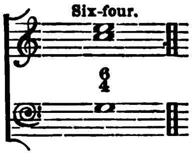
It is figured by 5, 3, or 8, according to circumstances. [Vide Article XIV.]

Ex. 37.



Its first inversion, or derivative, consists of the minor third, and the minor sixth. It is called the chord of the sixth. It is figured by 6:—

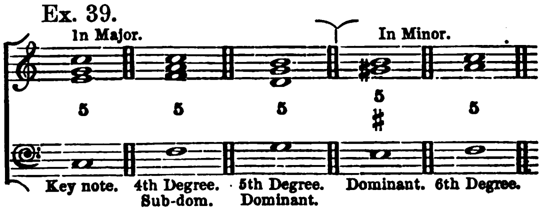
Ex. 38.



Its second inversion consists of the fourth, and the major sixth. It is called the chord of the six-four. It is figured by $\frac{6}{4}$:—

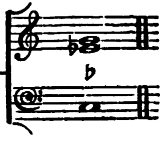
The major common chord is placed on the tonic. It is likewise placed on the sub-dominant, and the dominant, in a major key; and on the dominant and sixth degree of the scale in a minor key:—

Ex. 39.



The Minor Common Chord.

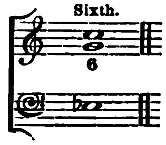
Ex. 40.



The minor common chord consists of the minor third and a fifth:—

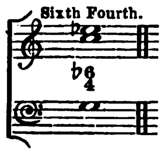
Its first inversion consists of the major third and the major sixth :—

Ex. 41.



Its second inversion consists of the fourth, and the minor sixth :—

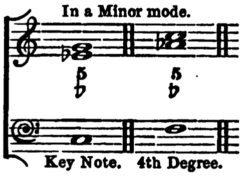
Ex. 42.



This chord, and its inversions, (or derivatives), are figured like the major common chord; indicating, with the figures, those accidentals which are not specified by the clef.

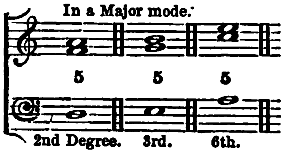
The minor common chord is placed on the tonic of the minor key. It is also placed on the fourth degree of the scale of the same key :—

Ex. 43.



In a major key, the minor common chord is placed on the second, the third, and the sixth degrees of the scale :—

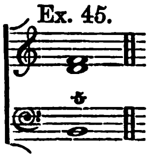
Ex. 44.



THE IMPERFECT COMMON CHORD.

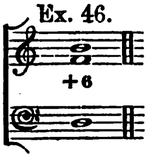
The imperfect common chord consists of the minor third, and the diminished fifth.* It is figured by 5̸ :—

Ex. 45.



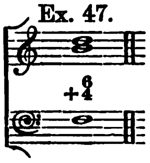
Its first inversion (or derivative) consists of the minor third, and the major sixth. It is figured by +6 :—

Ex. 46.



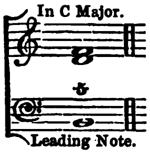
Its second inversion consists of the superfluous fourth, and the major sixth. It is figured by $+\frac{6}{4}$:—

Ex. 47.

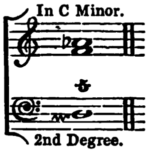


The imperfect common chord is placed on the 7th degree of the major key, and on the second degree of the minor key :—

Ex. 48.



Ex. 49.



Observation.—Although the interval of a diminished fifth be not a consonant one, yet this chord cannot be classed among discords, inasmuch as none of the notes which compose it possess a determined progression (as is the case with all the discords), but may either ascend, descend, or remain stationary; from which it may be deduced, that, if this chord be less perfect than the two others, it can nevertheless be employed in effecting a momentary repose before reaching the final cadence: and therefore, it should be ranked among concords.

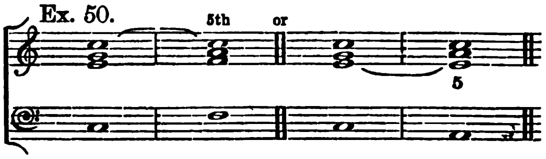
The common chord may be placed on every degree or note of the scale.

Common chords should succeed each other in such a manner, as that at least one note of a chord shall form part of the following chord.

The best way of combining common chords with each other, is by preparing their several fifths :—

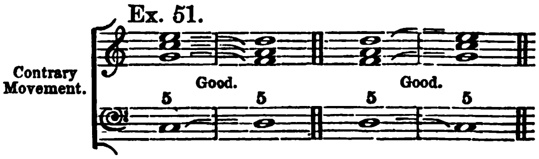
PREPARATION OF THE FIFTH.

Ex. 50.

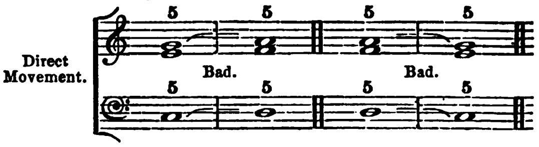


Nevertheless several common chords may follow each other without any connection; in which case, contrary movement should be employed between the parts, in order to avoid the successive fifths that would necessarily result from direct movement :—

Ex. 51.

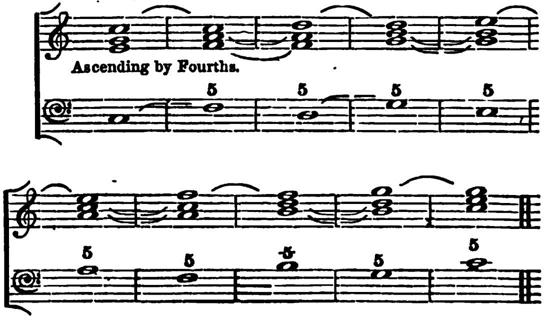


Ex. 52.



A series of common chords, in which all the fifths are prepared :—

Ex. 53.



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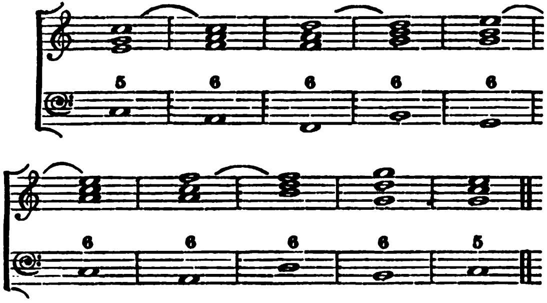
* This chord consists of the third and the fifth, like the major and minor common chord; but it is styled imperfect, on account of the diminished fifth, which is not a consonant interval.

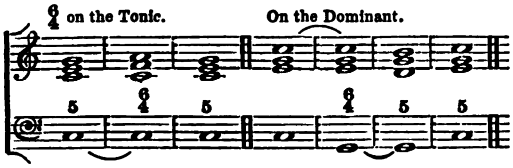
A series of sixths; first inversion of the preceding common chords :—

Ex. 54.

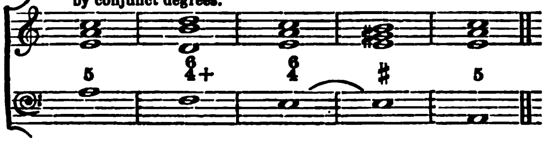


The second inversion would give a succession of six-fours, which is not used, on account of its vague and somewhat harsh effect. The chord of the six-four is seldom employed, excepting on the tonic and on the dominant :—

Ex. 55.

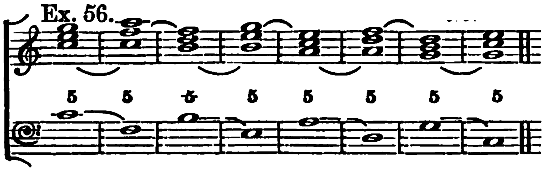

$\frac{6}{4}$ on the Tonic.
On the Dominant.
5 $\frac{6}{4}$ 5 $\frac{6}{4}$ 5 5

In some cases, two $\frac{6}{4}$ may be used successively, but it must be by conjunct degrees.



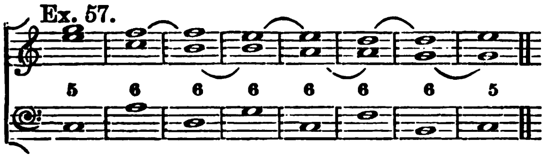
Another series of common chords, with all the fifths prepared :—

Ex. 56.



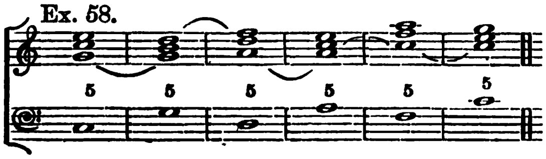
A series of sixths, inversion of the same passage :—

Ex. 57.

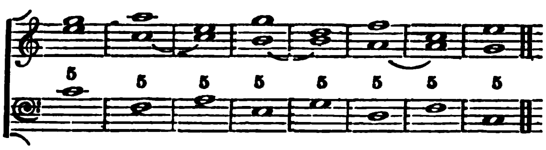


A series of common chords in which the fifths are not prepared :—

Ex. 58.

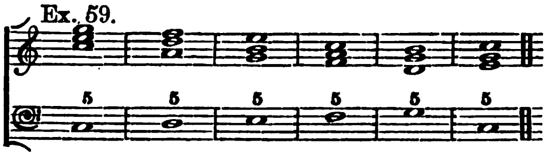


Another series :—



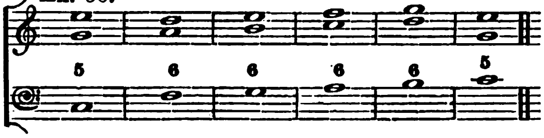
A series of common chords which have no connection with each other :—

Ex. 59.



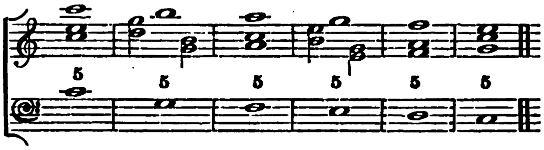
A series of sixths, inversions of the preceding progression. The series proceeds by direct movement :—

Ex. 60.



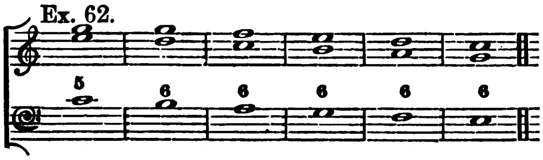
Another series of common chords, descending :—

Ex. 61.



Series of sixths; inversion of the preceding :—

Ex. 62.

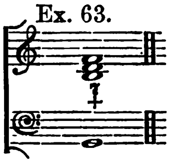


ARTICLE III.

The Dominant Seventh.

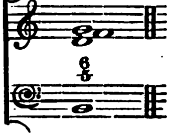
The chord of the dominant seventh consists of the major third, the fifth, and the minor seventh. It is figured by $\frac{7}{+}$, or 7. It is placed on the fifth of the key :—

Ex. 63.



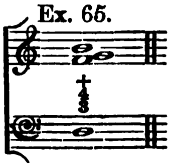
The seventh is a discord, and must descend by one degree; while the leading note must ascend by one degree. Its first inversion consists of the minor third, the diminished fifth, and the minor sixth. It is figured by $\frac{6}{5}$. It is called the chord of the sixth and diminished fifth. It is placed on the leading note :—

Ex. 64.



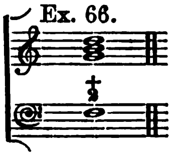
Its second inversion consists of the minor third, the fourth, and the major sixth. It is figured by $\substack{+\\4\\3}$ or +6. It is called the chord of the little sharp sixth. It is placed on the second note of the key:—

Ex. 65.



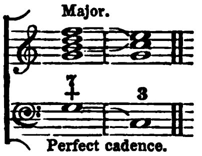
Its third inversion consists of the major second, the superfluous fourth or tritone, and the major sixth. It is called the chord of the tritone. It is figured by $\substack{+\\2}$ or by +4 :—

Ex. 66.

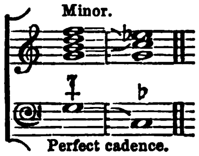


The chord of the dominant seventh is resolved on the tonic; which produces a repose in harmony called a perfect cadence:—

Ex. 67.



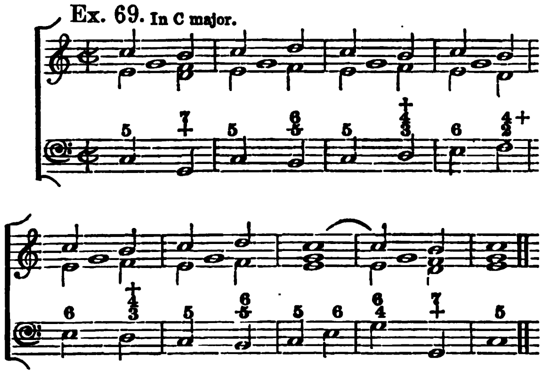
Ex. 68.



This chord is the same in both modes.

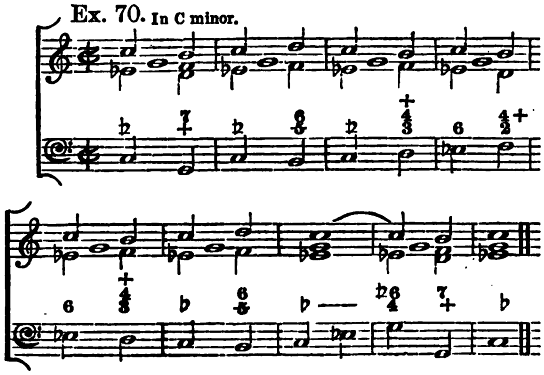
Method of employing the dominant seventh in the major mode :—

Ex. 69. In C major.



Method of employing the dominant seventh in the minor mode :—

Ex. 70. In C minor.

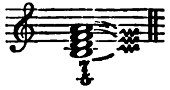


ARTICLE IV.

The Imperfect Seventh in the Major Mode.

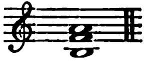
The chord of the imperfect seventh consists of the minor third, the diminished fifth, and the minor seventh. It is placed on the leading note :—

Ex. 71.



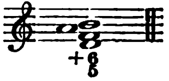
The seventh, which is a discord, descends by one degree. The fifth, which is diminished,—and consequently a discord,—descends also by one degree, and the leading note ascends by one degree. This chord is figured by $\substack{7\\ \not 5}$. That its effect may be the more agreeable, the third is omitted :—

Ex. 72.



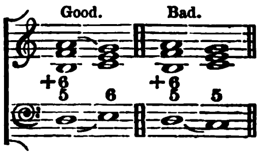
Its first derivative (or inversion) consists of the minor third, the fifth, and the major sixth. It is called the chord of the great sixth. It is figured by $+\substack{6\\5}$:—

Ex. 73.



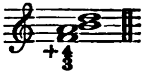
It is placed on the second note of the key, which must ascend, in order to avoid the two fifths :—*

Ex. 74. Ex. 75.



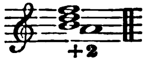
Its second derivative (or inversion) consists of the major third, superfluous fourth, and major sixth. It is called the chord of the tritone and major third. It is figured by $+\substack{4\\3}$. It is placed on the fourth note of the key:—

Ex. 77.



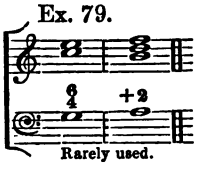
Its third derivative consists of the major second, the fourth, and the minor sixth. It is called the chord of the second. It is figured by +2. It is placed on the sixth note of the key:—

Ex. 78.

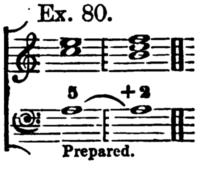


Although this inversion may be made without preparation, it is rarely used so; its effect is much more agreeable when the discord is prepared :—

Ex. 79.



Ex. 80.



Observation.—This chord is resolved on the tonic, as well as the dominant seventh. These two chords possess three notes in common.

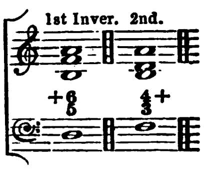
On each of these notes either of the two chords may be placed; or even both alternately.

The similarity which exists between these two chords,

---

* That the first and second derivatives of this chord may be employed in a more agreeable manner, the interval of a second which occurs, should be introduced as its inversion of a seventh:—

Ex. 76.

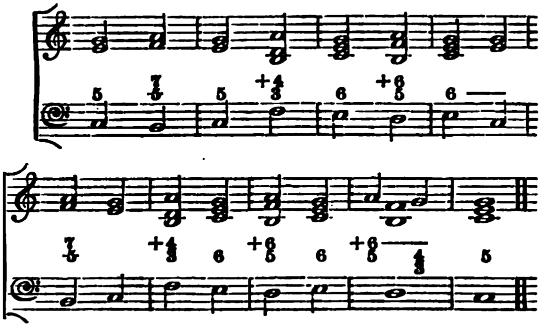


proves their identity; and clearly demonstrates that they originate from the same source.

The fundamental sound* of the dominant seventh should therefore be considered as that of the imperfect seventh.

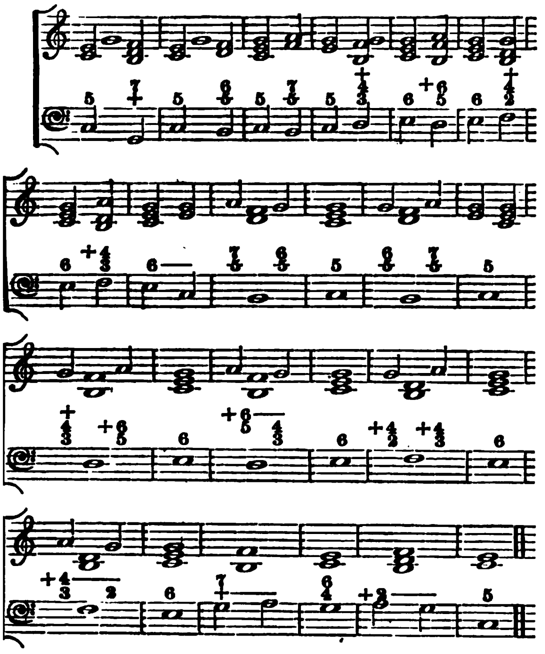
Method of employing the imperfect seventh in the major mode:—

Ex. 81.



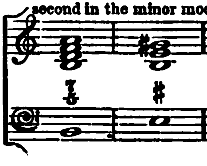
Method of employing the dominant seventh and the imperfect seventh alternately:—

No. 82.

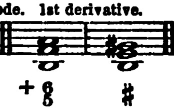


The chord of the imperfect seventh does not exclusively pertain to the major mode. There are cases, where it may be employed without preparation on the second note of the relative minor key. It is then called the chord of the seventh on the second of the minor key. It is resolved on the dominant.† It is figured, and also its derivatives, as in the major mode. Its third derivative is not used without preparation:—

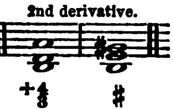
Ex. 83.
Chord of the seventh on the second in the minor mode.



Ex. 84.
1st derivative.



Ex. 85.
2nd derivative.

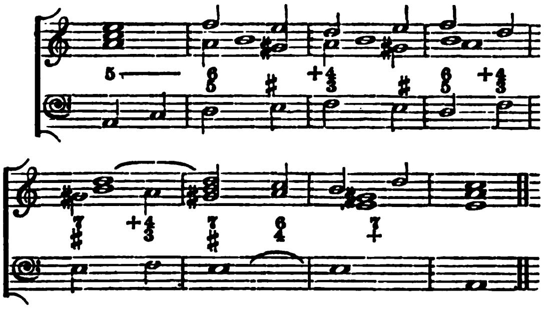


It is this double use, which has caused this chord to be called the mixed seventh.

Since, in the minor mode, this chord is much more frequently used by preparing the seventh, than without preparation; it is no other than an imperfect common chord, receiving a prolongation of the seventh. Thus, it ranks among simple chords, which receive the prolongation of an alien note. (See Article VII, on Prolongations, page 14.)

Method of employing the seventh on the second of the minor mode without preparation:—

Ex. 86.

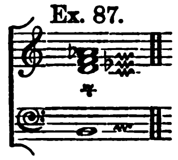


ARTICLE V.

The Diminished Seventh.

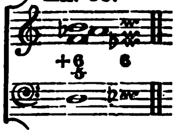
The diminished seventh is the imperfect seventh of the minor mode. It consists of the minor third, the diminished fifth, and diminished seventh, which make 3 minor thirds. This chord is placed on the leading note of the minor mode. It is figured by 7̸:—

Ex. 87.



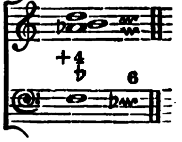
The seventh, which is a discord, should descend by one degree; the fifth, which is diminished, should also descend by one degree; and the leading note should ascend by one degree.‡ Its first inversion (or derivative) consists of the minor third, the diminished fifth, and the major sixth. It is called the chord of the sharp sixth with false fifth. It is figured by +6/5; and is placed on the second note of the key:—

Ex. 88.



Its second inversion consists of the minor third, the superfluous fourth, and the major sixth. It is called the chord of the tritone and minor third. It is figured by +4/♭; and is placed on the fourth note of the key:—

Ex. 89.



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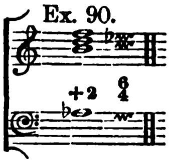
* The fundamental sound of a chord is its lowest note, when the chord is in a progression of thirds.

† In the minor mode, the fundamental sound (or root) of this chord is the lowest note of the chord itself; and not the dominant, as in the major mode.

‡ This chord pertains exclusively to the minor mode; it can only be employed in the major mode by a licence.

Its third inversion consists of the extreme sharp second, the sharp fourth, and the major sixth. It is called the chord of the extreme sharp second. It is figured by +2 ; and is placed on the sixth note of the key :—

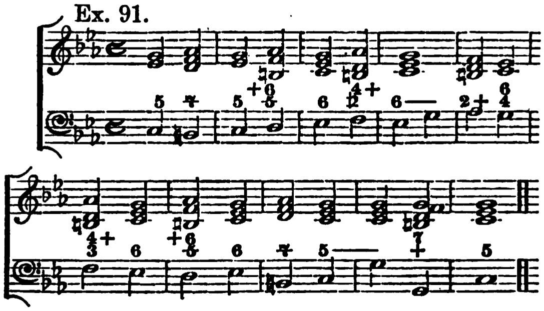
Ex. 90.



The chord of the diminished seventh is resolved on the tonic.

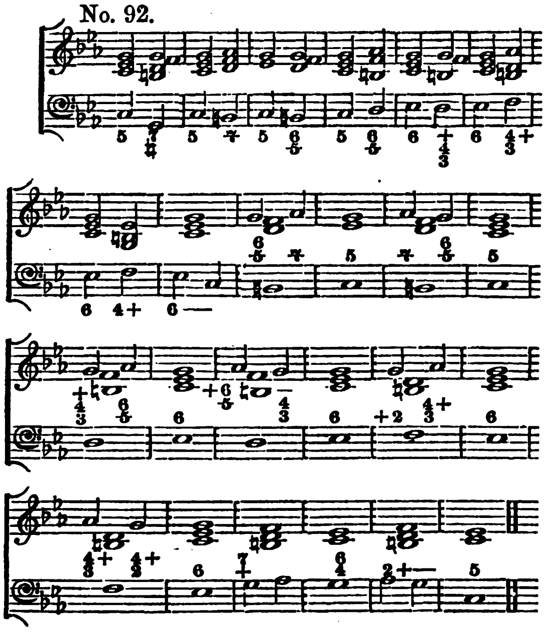
All that was said upon the imperfect seventh, as regards its relations with the dominant seventh, applies equally to the diminished seventh.

Ex. 91.



Method of employing the diminished seventh and the dominant seventh :—

No. 92.

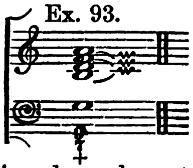


ARTICLE VI.

The Dominant Ninth, Major.

This chord is a combination of the dominant seventh and the imperfect seventh together. It consists of the major third, fifth, minor seventh, and major ninth. It is figured by $\substack{9\\7\\+}$; and is placed on the dominant :—

Ex. 93.



The seventh and ninth are discords, and must descend by one degree.

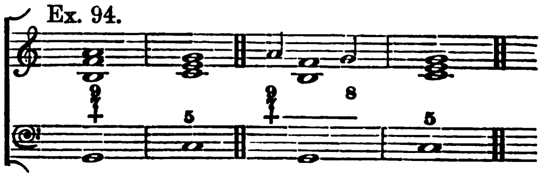
They may be resolved either at the same time, or one after the other, by beginning with the ninth.

The leading note must ascend by one degree.

This chord is resolved on the tonic.

The fifth should be omitted, to render the effect less harsh :—

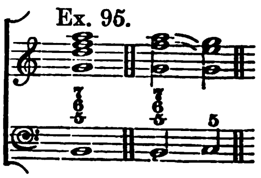
Ex. 94.



This chord is susceptible of inversions; but the fundamental sound should always be at the distance of a ninth from the discord, this interval not being susceptible of inversion.

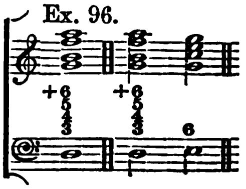
The first inversion consists of the minor third, the diminished fifth, the minor sixth, and minor seventh, at the octave above. It is figured by $\substack{7\\6\\\not{5}}$; and is placed on the leading note :—

Ex. 95.



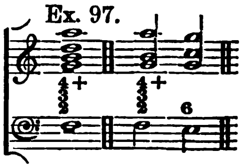
The second inversion consists of the minor third, the fourth, the fifth at the octave above, and the major sixth. It is figured by $\substack{+6\\5\\4\\3}$ This inversion is the least used :—

Ex. 96.



The third inversion consists of the major second, the major third at the octave above, the superfluous fourth, and major sixth. It is figured by $\substack{+4\\3\\2}$:—

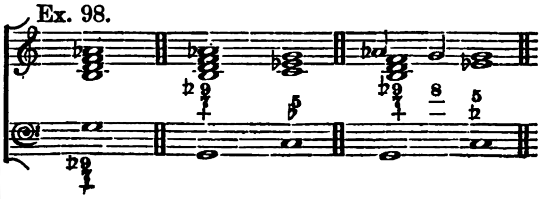
Ex. 97.



The Dominant Ninth, Minor.

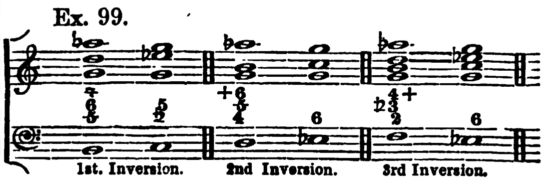
This chord is the same as the preceding; with the exception of the ninth, which is minor. It is an amalgamation of the dominant seventh, and of the diminished seventh. It is figured by $\substack{\natural 9\\7\\+}$:—

Ex. 98.



It is employed in the same manner as the preceding, as well as its inversions :—

Ex. 99.



ARTICLE VII.

Passing Notes; Prolongations; Suspensions; and Retardations.

Natural harmony being composed only of common chords, dominant sevenths, and sevenths on the leading note, the too frequent recurrence of the same chords produces a monotony that is obviated by means of certain artificial discords introduced into simple harmony. These discords are of two kinds: passing notes, and prolonged notes.

Passing Notes.

Passing notes are employed on the unaccented part of the bar, or on the unaccented portions of time in the bar.

They are not akin to the chords, upon which they merely touch, without becoming identified with them.

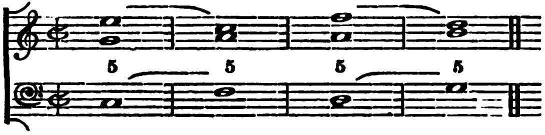
They serve to fill up the space of an interval of a third, of a fifth, &c.

They should always proceed diatonically; that is to say, they should proceed by conjunct degrees, whether in ascending or descending.

The rule which forbids two fourths, two fifths, or two octaves in succession, applies to passing notes as if they formed part of the harmony.

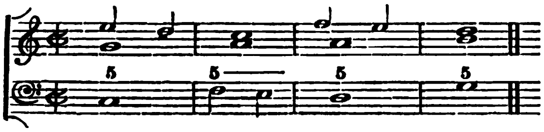
Natural harmony, with a leap of a third in the melody and a leap of a fourth in the bass:—

Ex. 100.



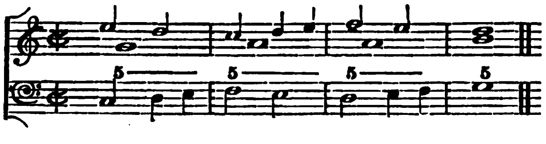
The leap of a third filled up by a passing note in the melody and in the bass:—

Ex. 101.



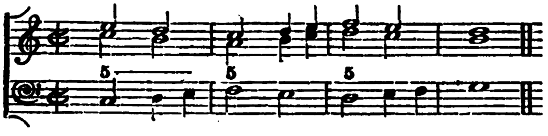
The leap of a fourth filled up by two passing notes in the melody and in the bass:—

Ex. 102.



The second part containing the passing notes at a third below the first part:—

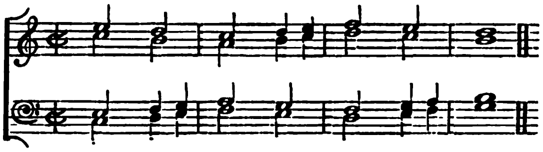
Ex. 103.



The third part containing the passing notes at a third above the bass.

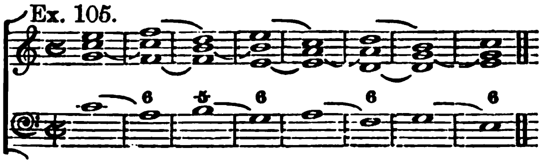
In this example the four parts contain passing notes by contrary movement:—

Ex. 104.



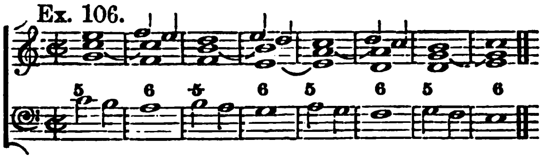
Natural harmony, with a leap of a third in the melody and bass:—

Ex. 105.



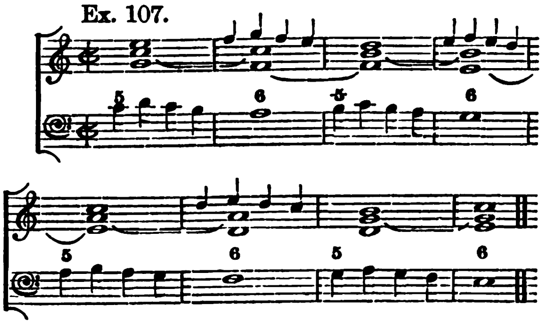
The leap of a third filled up in the melody and bass by a passing note, placed on the unaccented part of the bar:—

Ex. 106.



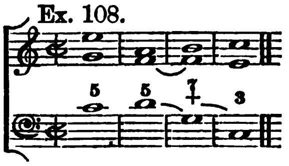
A passing note placed on the unaccented part of each portion of the bar in the treble and bass:—

Ex. 107.



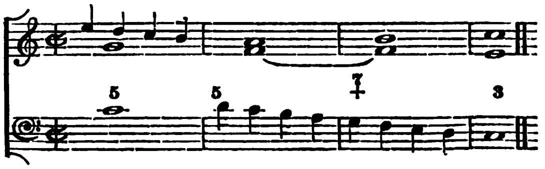
Ex. 108.

Natural harmony, with a leap of a fifth in the melody and bass:—



The leap of a fifth filled up by passing notes, in the melody and bass:—

Ex. 109.

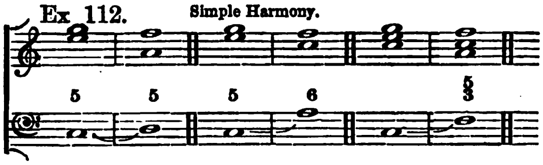


Prolonged Notes.

One or more notes of a chord may be prolonged on to the following chord.

The prolonged note is a discord which must descend by one degree, either in the chord itself on to which it is prolonged, or in the following chord :—*

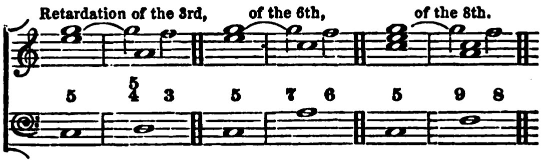
Ex. 112.


Simple Harmony.

Prolongation is generally no more than the retardation of a note of the chord. In this case, it may be resolved in the chord itself, on the note which it retarded.

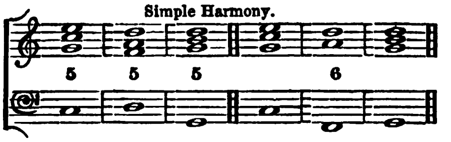
That is called a chord of suspension, in which one or more notes are retarded :—

Ex. 113. Ex. 114. Ex. 115.

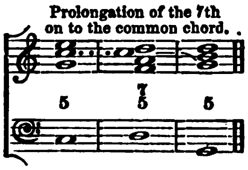

Retardation of the 3rd, of the 6th, of the 8th.

Prolongation may also be effected on a chord already complete, in which the prolonged note is not resolved; but it must necessarily be resolved in the following chord, by descending one degree :—

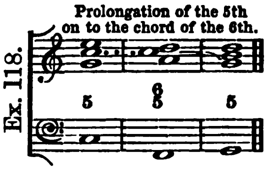
Ex. 116.


Simple Harmony.

Ex. 117.


Prolongation of the 7th on to the common chord.

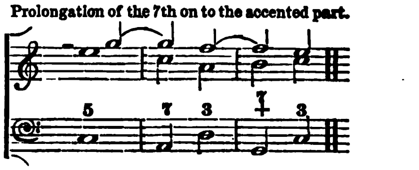
Ex. 118.


Prolongation of the 5th on to the chord of the 6th.

Prolongations produce discords of the second, the third, the fourth or eleventh, the fifth, the sixth or thirteenth, the seventh, and the ninth.

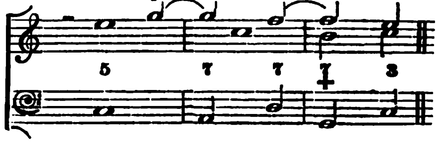
A prolongation is made on the accented part of the bar, or on the accented portion of it; and the resolution is made on the unaccented part :—

Ex. 119.

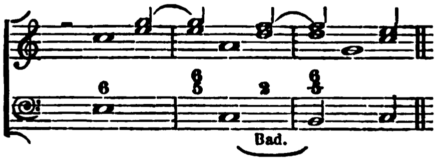

Prolongation of the 7th on to the accented part.

A prolongation may also be made on the unaccented part of the bar, when it has already been made on the accented part; excepting in the bass, which does not admit of it on the unaccented part :—

Ex. 120.


Prolongation of the 7th on the accented and unaccented part of the bar.

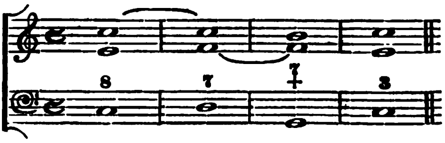
Ex. 121.



The prolonged note should have at least as long a duration when a concord, as when a discord.†

This rule is by no means indispensable :—

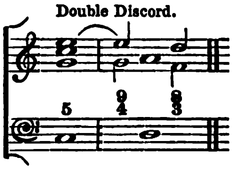
Ex. 122.



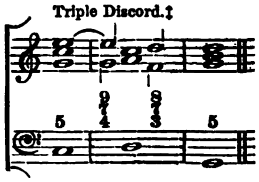
Not only one, but two or three notes may be prolonged simultaneously, which produces double and triple discord.

Each of these discords should find its resolution, either in the chord itself, or in the following chord:—

Ex. 123.

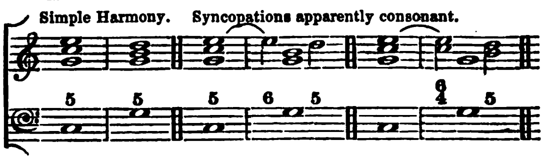

Double Discord.

Ex. 124.


Triple Discord.‡

The prolonged note is a discord, when it forms an interval of a second or a seventh, with one of the notes of the chord, on to which it is prolonged; but in the contrary case, it is apparently a concord, although it is really a discord, since it is not akin to the chord :—

Ex. 125. Ex. 126. Ex. 127.


Simple Harmony. Syncopations apparently consonant.

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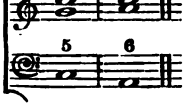
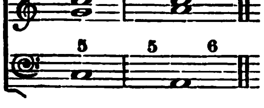
* There are cases, where the prolonged note is a retardation of an upper note; on such an occasion, it should ascend by one degree, instead of descending :—

Ex. 110.


Simple Harmony.

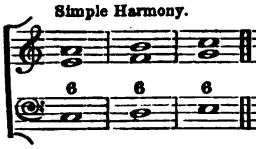
Ex. 111.


Retardation of the 6th by the 5th.

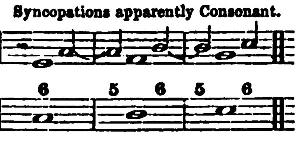
† The concord which precedes a discord, is called its preparation.

‡ This chord is known as the chord of the eleventh.

Ex. 128.
Simple Harmony.

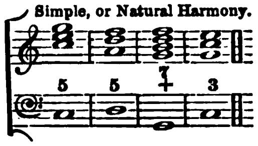


Ex. 129.
Syncopations apparently Consonant.



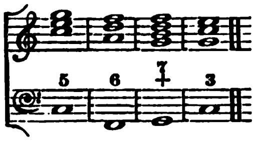
The second chord in this example, is a common chord on the second note of the key. This is the chord which will be inverted in the following examples; and it is upon this chord and its inversions, that all the prolongations will be made:—

Ex. 130.
Simple, or Natural Harmony.



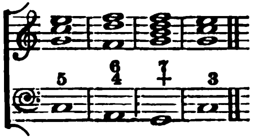
Ex. 131.

The first inversion presents a simple chord of the sixth:—



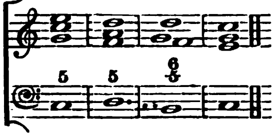
Ex. 132.

The second inversion presents a chord of the fourth and sixth:—



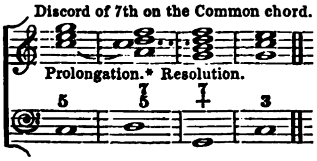
Ex. 133.

In this example the common chord is not inverted, but it descends a third:—



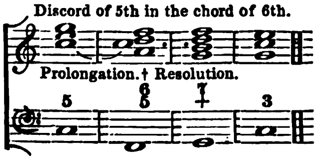
The C prolonged on the chord of D, forms a discord of a seventh on the common chord of D. This discord is resolved by descending one degree on the chord of the dominant seventh:—

Ex. 134.
Discord of 7th on the Common chord.



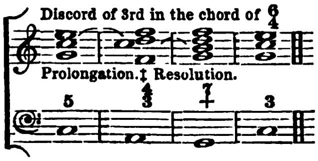
No. 135.
Discord of 5th in the chord of 6th.

The C prolonged on the F, forms a discord of a fifth in the chord of the sixth:—



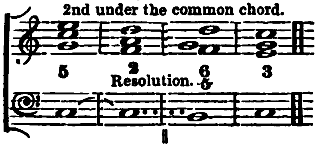
Ex. 136.
Discord of 3rd in the chord of 6/4

The C prolonged on the A, forms a discord of a third in the chord of the six-four:—



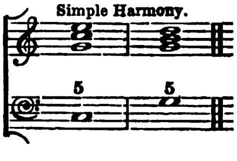
The C prolonged in the bass, under the chord of D, forms a discord of a second,§ beneath the common chord:—

Ex. 137. **Discord of 2nd under the common chord.**



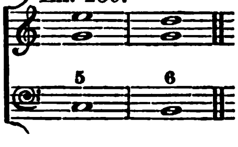
In this example, the second chord is a major common chord; upon which, and its inversions, the prolongation will be made:—

Ex. 138.
Simple Harmony.



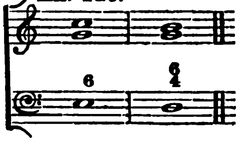
Ex. 139.

The first inversion is a chord of the sixth:—



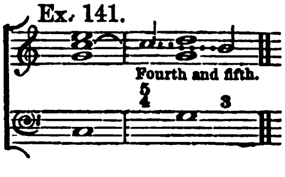
Ex. 140.

The second inversion is a chord of a fourth and sixth:—



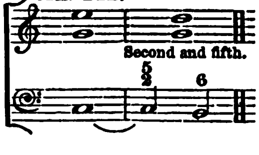
Ex. 141.

Discord of a fourth, retarding the third in the common chord:—



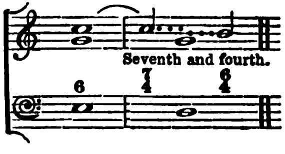
Ex. 142.

Discord of a second retarding the chord of the sixth:—



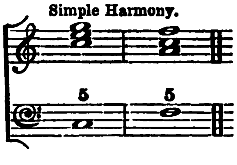
Ex. 143.

Discord of a seventh retarding the chord of the six-four:—



Ex. 144.
Simple Harmony.

In this example, the second chord is a major common chord:—



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* This chord is known as that of the minor seventh.

† This chord is known as that of the fifth and sixth, or first derivative of the minor seventh.

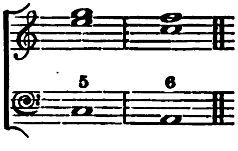
‡ This chord is known as that of the little sixth, or second derivative of the minor seventh.

§ It should be observed that when the term *Discord of the second* is used, it is not the second which is the discord, but the note itself of the bass; whereas, when the terms are used—discord of the third, of the fourth, of the fifth, of the seventh, &c., it is the third, the fourth, the fifth, and the seventh which are discords.

|| This chord is known as that of the second, or the third derivative of the minor seventh.

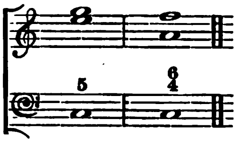
First inversion, chord of the sixth:—

Ex. 145.



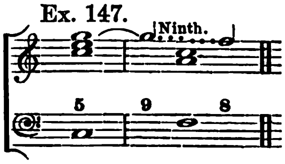
Second inversion, chord of the six-four:—

Ex. 146.



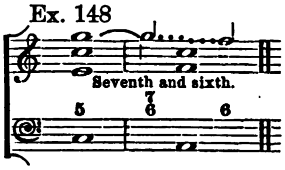
Discord of a ninth, retarding the octave in the common chord:—

Ex. 147.



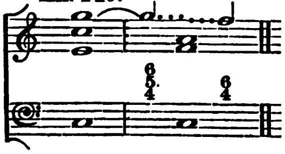
Discord of a seventh, retarding the octave of the sixth in the chord of the sixth:—

Ex. 148



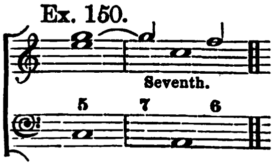
Discord of a fifth, retarding the octave of the fourth in the chord of the six-four:—

Ex. 149. Fourth, fifth, & sixth.



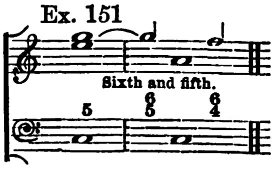
Discord of a seventh, retarding the sixth in the chord of the sixth:—

Ex. 150.



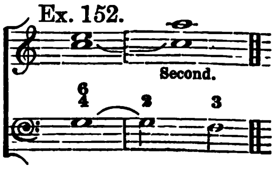
Discord of a fifth, retarding the fourth in the chord of the six-four:—

Ex. 151



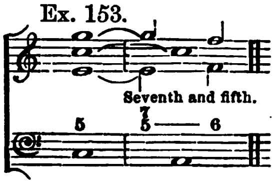
Discord of a second, retarding the common chord:—

Ex. 152.



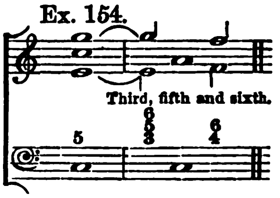
Double discord of a fifth and seventh, retarding the sixth in the chord of the sixth:—

Ex. 153.



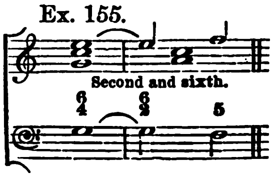
Double discord of a third and fifth, retarding the fourth in the chord of the six-four:—

Ex. 154.



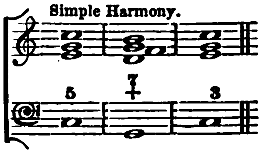
Double discord of a second and sixth, retarding the fundamental note, and the octave in the common chord:—

Ex. 155.



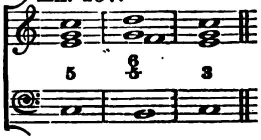
Example of the dominant seventh and its three inversions:—

Ex. 156.



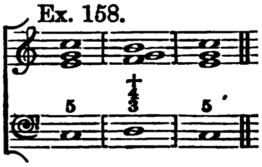
First inversion. Chord of the sixth and diminished fifth:—

Ex. 157.



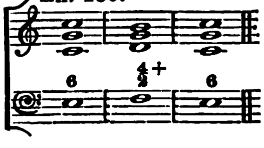
Second inversion. Chord of the little sharp sixth:—

Ex. 158.



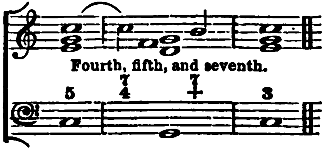
Third inversion. Chord of the tritone:—

Ex. 159.



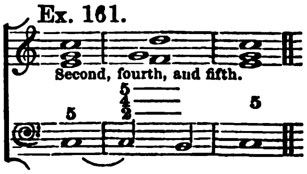
Discord of a fourth, retarding the third in the chord of the dominant seventh:—

Ex. 160.



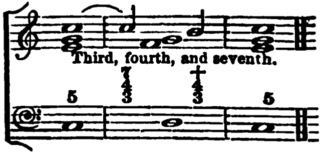
Discord of a second, retarding the chord of the diminished fifth and sixth:—

Ex. 161.



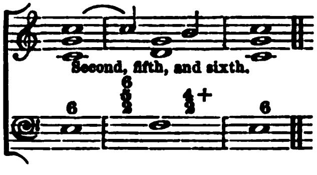
Discord of a seventh, retarding the sixth in the chord of the imperfect seventh:—

Ex. 162.



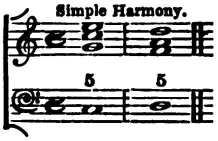
Discord of a fifth, retarding the fourth in the chord of the tritone:—

Ex. 163.



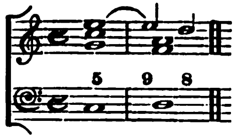
In this example, the second chord is a minor common chord:—

Ex. 164.



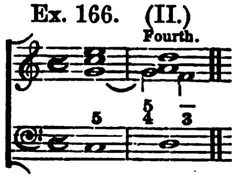
Discord of a ninth, retarding the octave in the common chord:—

Ex. 165. (I.)



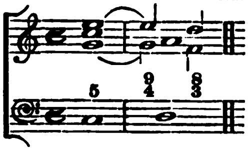
Discord of a fourth, retarding the third in the common chord:—

Ex. 166. (II.)



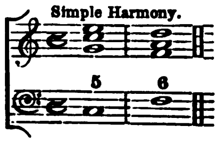
Double discord of a ninth and a fourth, retarding the octave and the third in the common chord:—

Ex. 167. (III.)



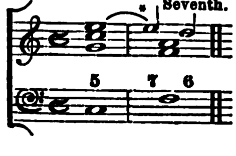
In this example, the second chord is a simple chord of the sixth:—

Ex. 168.



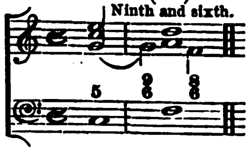
Discord of a seventh, retarding the sixth in the chord of the sixth:—

Ex. 169. (IV.)



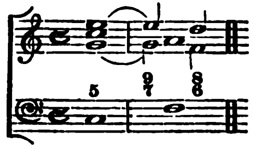
Discord of a ninth, retarding the octave in the chord of the sixth:—

Ex. 170. (V.)



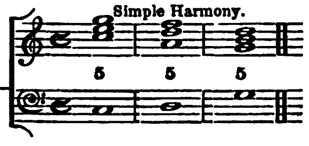
Double discord of a seventh and ninth, retarding the sixth and the octave in the chord of the sixth:—

Ex. 171. (VI.)



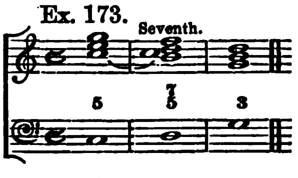
In this example, the second chord is a minor common chord:—

Ex. 172.



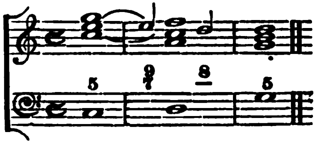
Discord of a seventh on the common chord:—

Ex. 173.



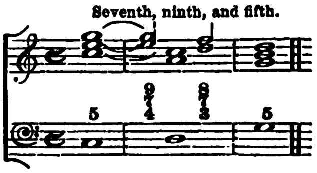
Double discord of a seventh on the common chord and of a ninth, retarding the octave:—

Ex. 174.



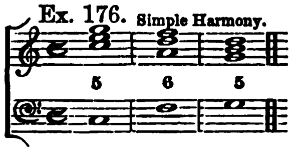
Triple discord of a seventh on the common chord, and of a ninth and fourth, retarding the octave and the third:—

Ex. 175.



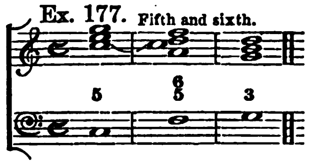
Chord of the sixth at the second bar:—

Ex. 176.



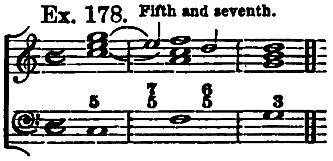
Discord of a fifth in the chord of the sixth:—

Ex. 177.



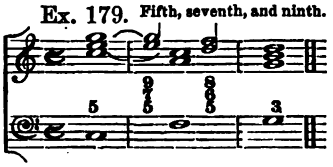
Double discord of a fifth in the chord of the sixth, and of a seventh, retarding the sixth:—

Ex. 178.



Triple discord of a fifth in the chord of the sixth, and of a seventh and ninth, retarding the sixth and the octave:—

Ex. 179.



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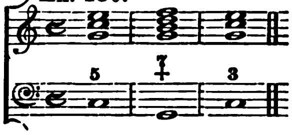
* This chord is known as that of the major seventh.

The chords of the dominant seventh, the imperfect seventh, and the diminished seventh, may be wholly prolonged on the tonic and on the mediant.

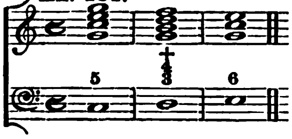
The chord of the dominant seventh, followed by the tonic, carrying the common chord :—

Ex. 180.



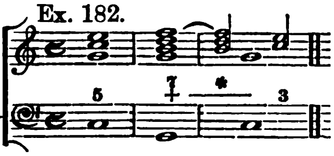
Second inversion of the dominant seventh, followed by the mediant, carrying the chord of the sixth :—

Ex. 181.



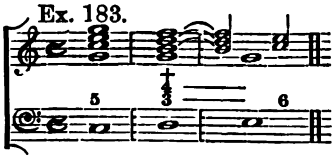
Prolongation of the dominant seventh on the tonic, retarding the common chord:—

Ex. 182.



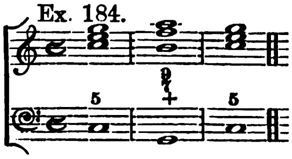
Prolongation of the dominant seventh on the mediant, retarding the chord of the sixth :—

Ex. 183.



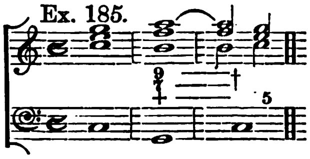
Chord of the imperfect seventh on the dominant, or dominant ninth, followed by the tonic, carrying the common chord :—

Ex. 184.



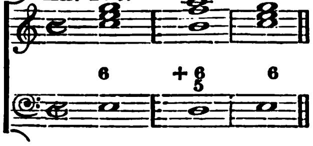
Prolongation of the imperfect seventh on the tonic, retarding the common chord :—

Ex. 185.



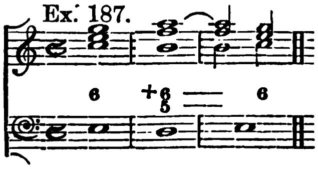
First inversion of the imperfect seventh, followed by the mediant, carrying the chord of the sixth :—

Ex. 186.



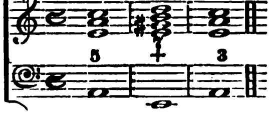
Prolongation of the imperfect seventh, on the mediant, retarding the chord of the sixth :—

Ex. 187.



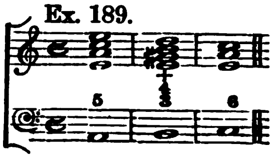
Chord of the dominant seventh, followed by the tonic in the minor mode :—

Ex. 188.



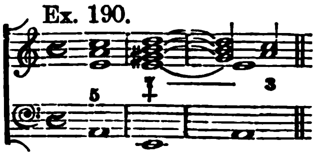
Second inversion of the dominant seventh, followed by the mediant, carrying the chord of the sixth :—

Ex. 189.



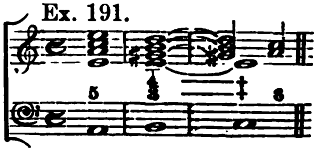
Prolongation of the dominant seventh on the tonic, retarding the common chord :—

Ex. 190.



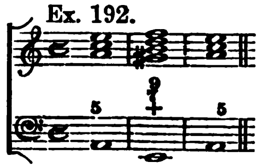
Prolongation of the dominant seventh on the mediant, retarding the chord of the sixth. In this prolongation, the mediant forms, with the leading note, the interval of an extreme sharp fifth :—

Ex. 191.



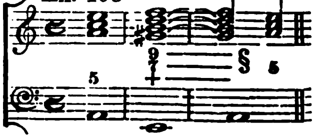
Chord of the diminished seventh on the dominant, or dominant minor ninth, followed by the tonic :—

Ex. 192.



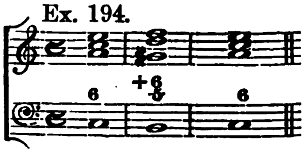
Prolongation of the diminished seventh on the tonic, retarding the common chord :—

Ex. 193



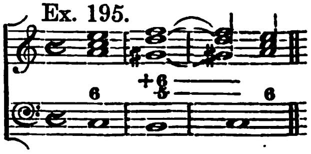
First inversion of the diminished seventh, followed by the mediant, retarding the chord of the sixth :—

Ex. 194.



Prolongation of the diminished seventh on the mediant, retarding the chord of the sixth. This prolongation also presents the interval of the extreme sharp fifth :—

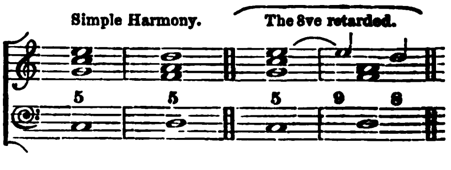
Ex. 195.



Examples of all the progressions in the bass; together with the natural chords, and the prolongations, which may be introduced.

The bass ascends by a second :—

Ex. 196.



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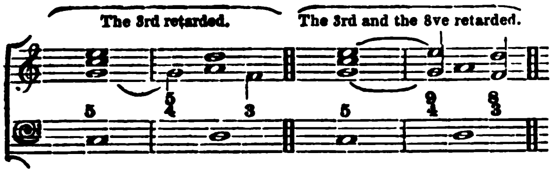
* This chord is known as that of the superfluous seventh, or eleventh on the tonic.

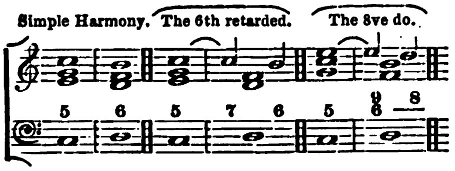
† This chord is known as that of the superfluous seventh, and major sixth, or thirteenth on the tonic.

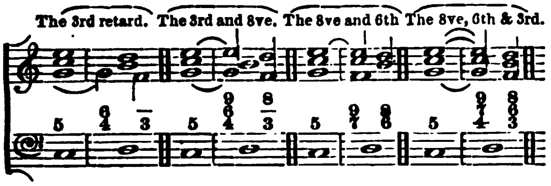
‡ This chord is known as that of the superfluous fifth.

§ This chord is known as that of the superfluous seventh and minor sixth, or thirteenth on the tonic.

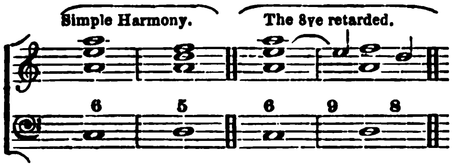


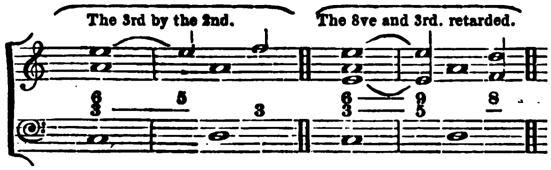
Ex. 197.



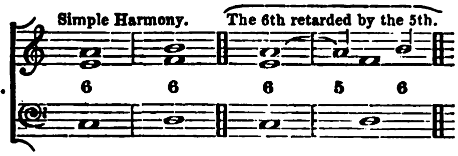


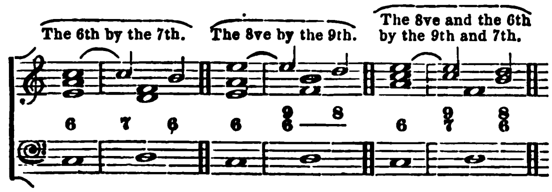
Ex. 198.



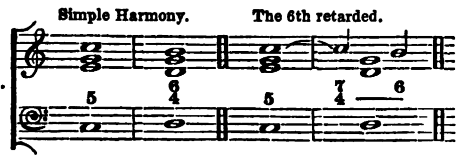


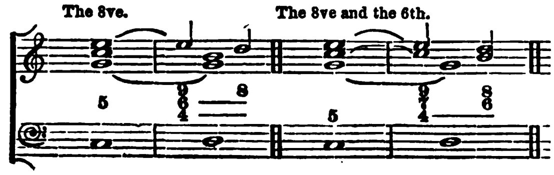
Ex. 199.



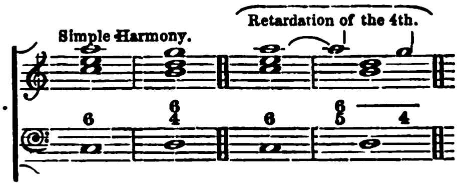


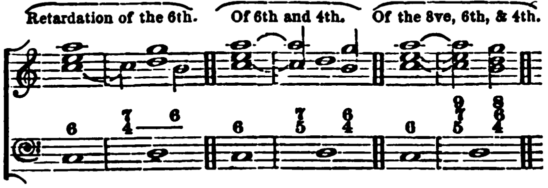
Ex. 200.





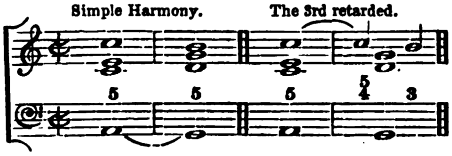
Ex. 201.

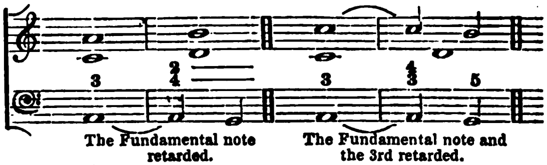




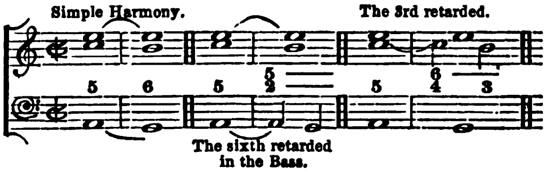
The bass descends by a second :—

Ex. 202.

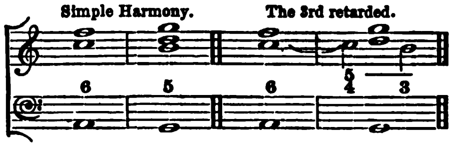


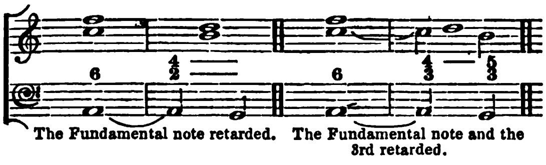

The Fundamental note retarded.
The Fundamental note and the 3rd retarded.

Ex. 203.

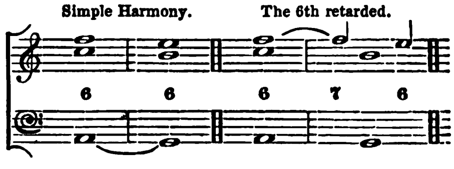


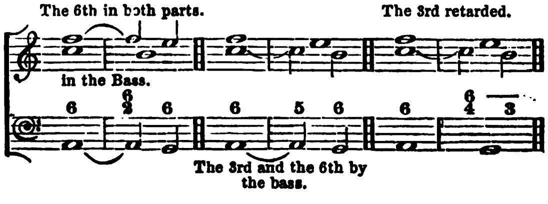
Ex. 204.



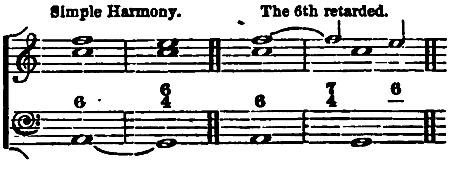

The Fundamental note retarded.
The Fundamental note and the 3rd retarded.

Ex. 205.



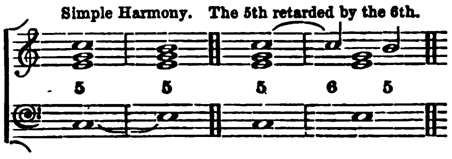


Ex. 206.

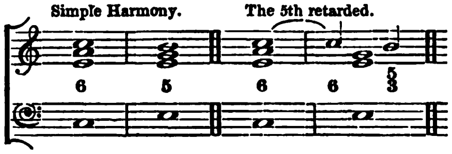


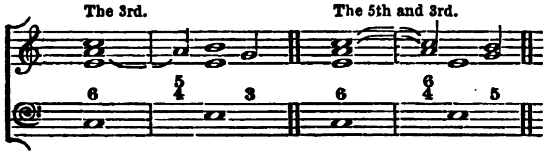
The bass ascends by a third :—

Ex. 207.

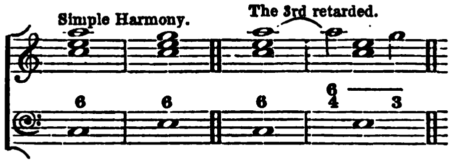


Ex. 208.



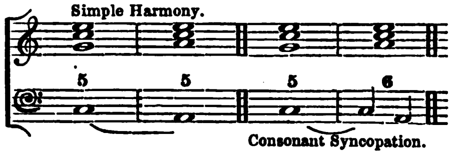


Ex. 209.

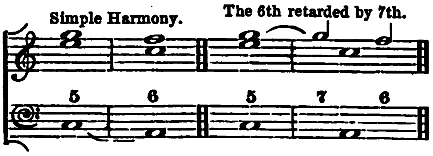


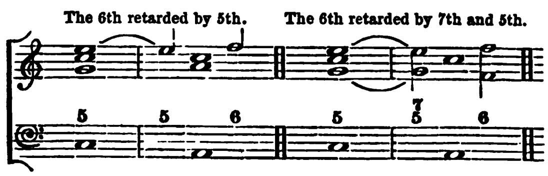
The bass descends by a third :—

Ex. 210.

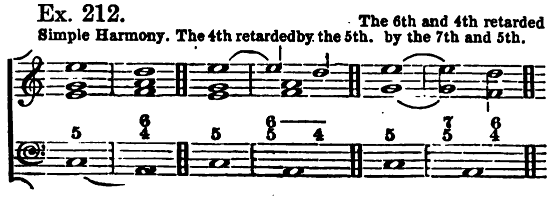


Ex. 211.



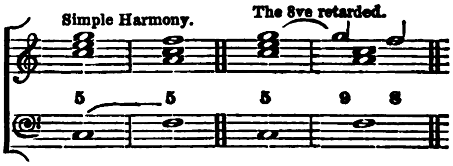


Ex. 212.

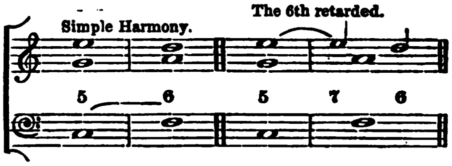

Simple Harmony.
The 4th retarded by the 5th.
The 6th and 4th retarded by the 7th and 5th.

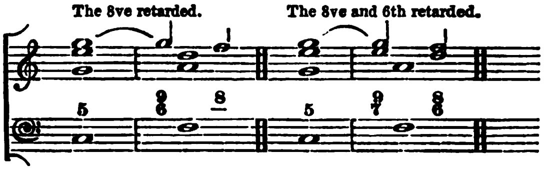
The bass ascends by a fourth :—

Ex. 213.

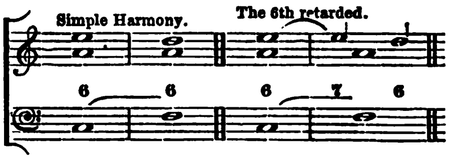


Ex. 214.



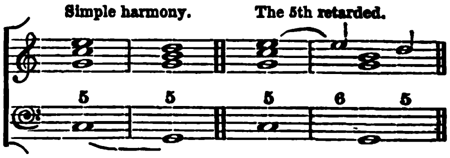


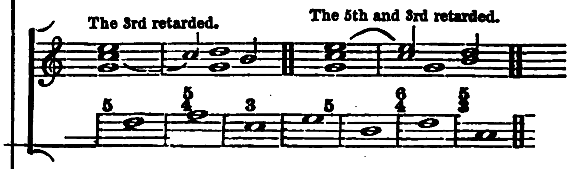
Ex. 215.



The bass descends by a fourth :—

Ex. 216.





ARTICLE VIII.

CADENCES.

A cadence is the termination of a musical phrase on a repose. The resolution of a discord into a concord is also called a cadence.

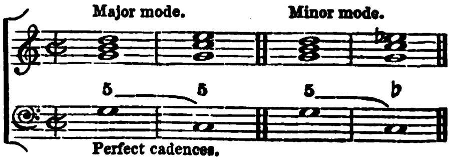
There are two principal cadences :—the cadence on the tonic, and the cadence on the dominant.

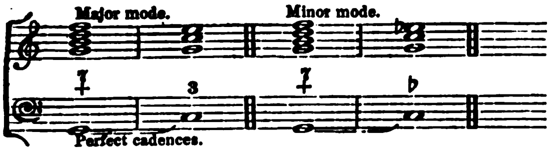
The cadence on the tonic concludes the sense of the musical phrase, and is called final or perfect cadence.

The cadence on the dominant suspends the sense of the musical phrase without concluding it.

The perfect cadence consists of the chord of the dominant resolved on the tonic :—

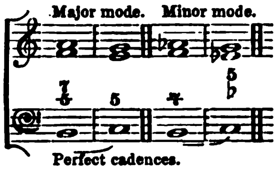
Ex. 217.





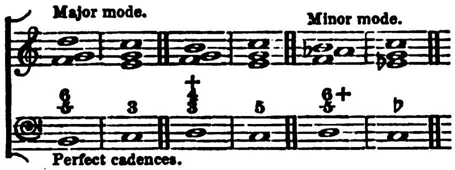
The resolution of the imperfect seventh, and of the diminished seventh on the tonic, is also a perfect cadence; but it is rarely employed as a final cadence:—

Ex. 218.



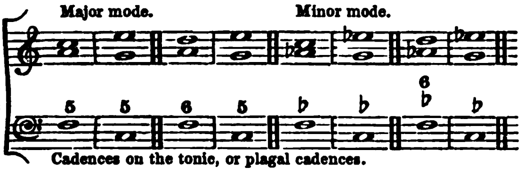
The inversions of the dominant seventh and of the diminished seventh, resolved on the tonic, form also perfect cadences:—

Ex. 219.



The cadence on the tonic may also be introduced by the subdominant, carrying the common chord, or chord of the sixth:—

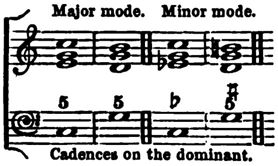
Ex. 220.



This cadence does not terminate the sense of the musical phrase as the perfect cadence does; nevertheless, it is occasionally used as a conclusion in music of the sacred style. It is called a plagal cadence.

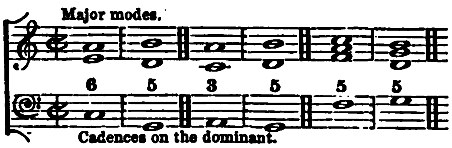
The cadence on the dominant is the transition of the tonic, while resting on the dominant:—

Ex. 221.

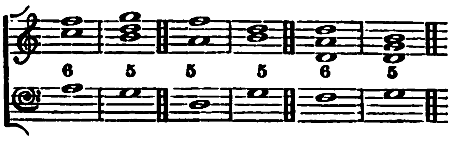


The cadence on the dominant is also the transition of every chord, while resting on the dominant; it is not a final repose, and merely serves to suspend the sense of a musical phrase:—

Ex. 222.

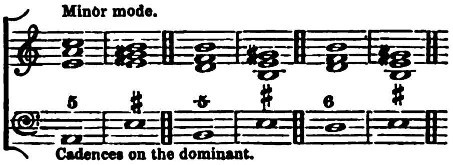


Ex. 223.

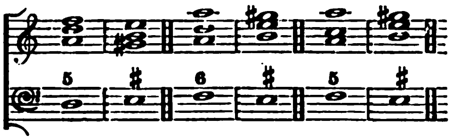


In the minor mode, the repose (or pause) on the dominant, always takes place on the major common chord:—

Ex. 224.

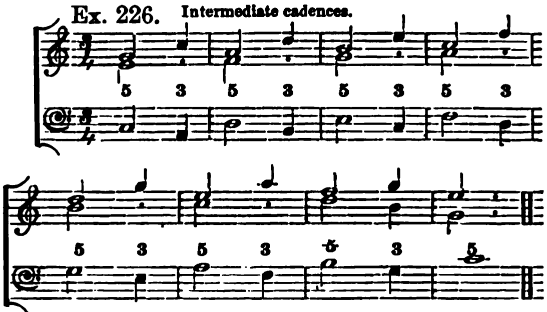


Ex. 225.



A momentary repose (or pause) may take place on each of the other notes of the scale, as an intermediate cadence, before reaching one of the two principal cadences:—

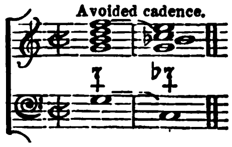
Ex. 226.



The perfect cadence may be avoided, interrupted, or broken, by changing the resolution of the dominant seventh, which announces that cadence.

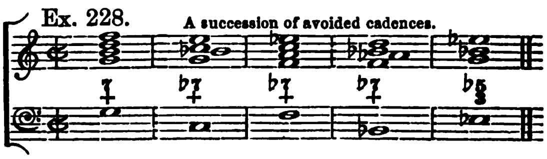
The cadence is avoided, by adding the minor seventh to the major common chord, upon which the pause was to have taken place; that is to say, by altering the tonic into a dominant seventh, which produces two successive dominant sevenths, descending by fifths:—

Ex. 227.



This cadence may continue to be avoided, and a series of dominant sevenths descending by fifths be given in succession:—

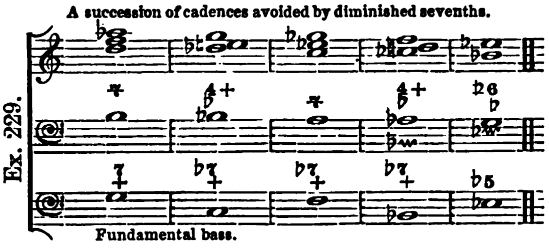
Ex. 228.



It should be observed, that the key changes each time one dominant succeeds another.

In the minor mode, the succession of dominant sevenths is effected as in the major mode; but the diminished sevenths produced by these dominants may be substituted, taking care that all the parts shall descend by semitones (see Article X. on Genera, p. 35):—

A succession of cadences avoided by diminished sevenths.

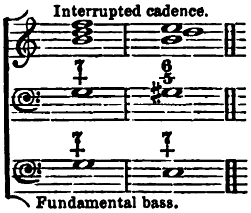


Ex. 229.

The perfect cadence is interrupted by causing the dominant seventh, that announces the cadence, to be followed by another dominant seventh, the fundamental note of which shall form a third below the first seventh :—

Ex. 230.

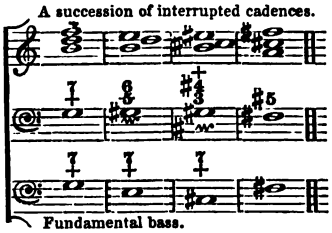
Interrupted cadence.



The interruption of the cadence may be continued, and a succession of dominant sevenths be given, the fundamental sound of each of which shall descend by a third :—

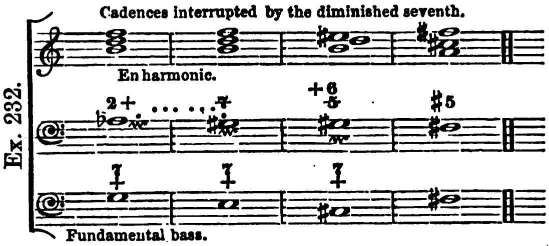
Ex. 231.

A succession of interrupted cadences.



In the minor mode, diminished sevenths may be used instead of dominant sevenths : this succession conveys the enharmonic genus (see Article X. on Genera, p. 35) :—

Cadences interrupted by the diminished seventh.

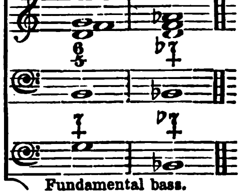


Ex. 232.

The perfect cadence may also be interrupted, by causing the dominant seventh to be followed by another dominant seventh, the fundamental note of which shall be a third above the former one :—

Ex. 233.

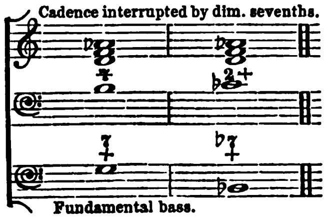
Interrupted cadence.



In the minor mode diminished sevenths may be employed instead of dominant sevenths :—

Ex. 234.

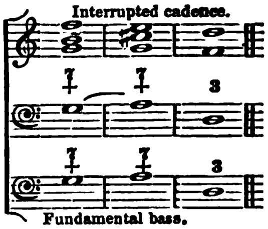
Cadence interrupted by dim. sevenths.



The perfect cadence may otherwise be interrupted by causing the dominant seventh to be followed by another dominant seventh, the fundamental note of which shall be a second above the former one :—

Ex. 235.

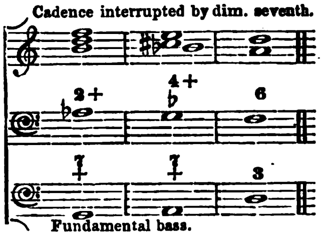
Interrupted cadence.



In the minor mode, diminished sevenths may be used instead of dominant sevenths:—

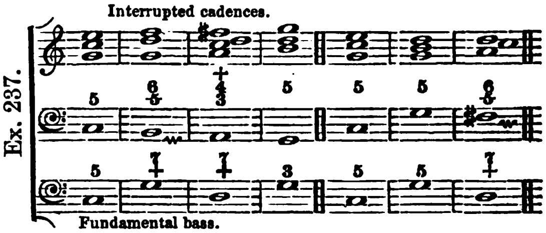
Ex. 236.

Cadence interrupted by dim. seventh.



The perfect cadence may likewise be interrupted, by causing the dominant seventh to be followed by another dominant seventh, the fundamental note of which shall be a fourth below the former one :—

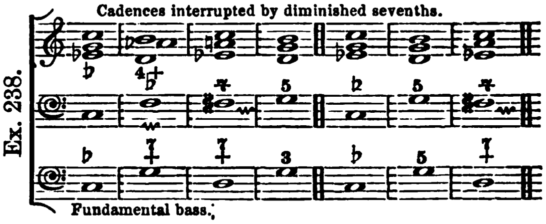
Interrupted cadences.



Ex. 237.

In the minor mode diminished sevenths may be employed instead of dominant sevenths :—

Cadences interrupted by diminished sevenths.



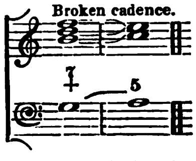
Ex. 238.

The perfect cadence is broken, by causing the dominant seventh to be followed by another concord than that of the tonic, which this seventh had announced.

Cadence broken by the common chord on the sixth note. This method of breaking the cadence is most generally used; it is the one meant by the simple expression, "BROKEN CADENCE :"—

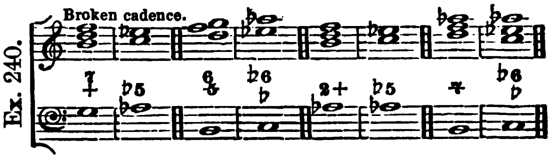
Ex. 239.

Broken cadence.



There are different modes of employing it in the minor mode :—

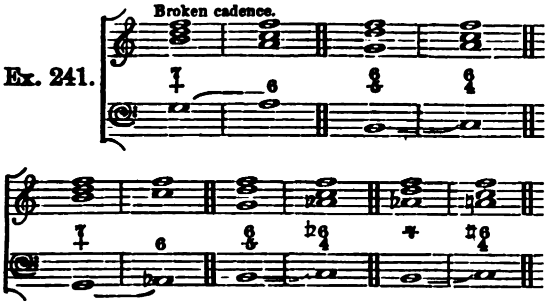
Broken cadence.



Ex. 240.

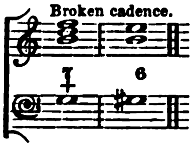
Cadence broken by the chord of the sixth on the sixth note; and the different methods of employing it in both modes :—

Ex. 241.



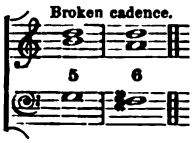
Ex. 242.

Cadence broken by the chord of the sixth on the dominant, altered into the leading note of the relative minor :—



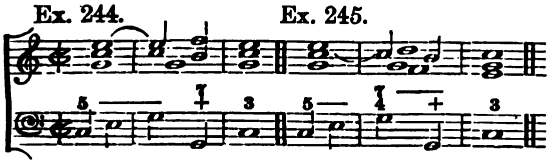
Ex. 243.

Cadence broken by the chord of the sixth on the fourth note, altered into the leading note of the dominant :—

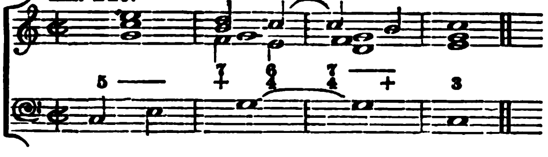


Examples of the most usual progressions in the bass, wherewith to introduce perfect cadences :—

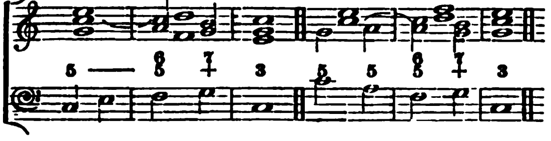
Ex. 244. Ex. 245.



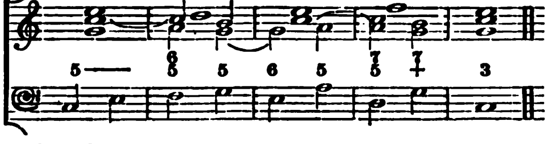
Ex. 246.



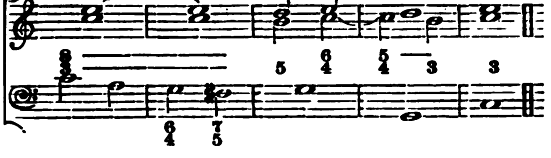
Ex. 247. Ex. 248.



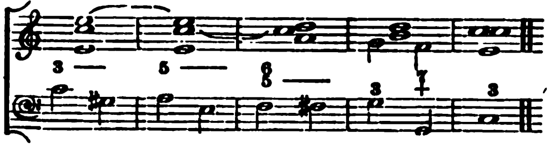
Ex. 249.



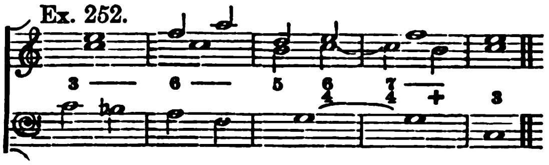
Ex. 250.



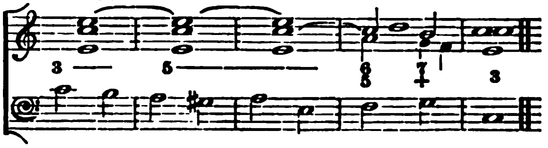
Ex. 251.



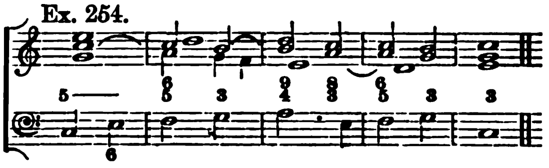
Ex. 252.



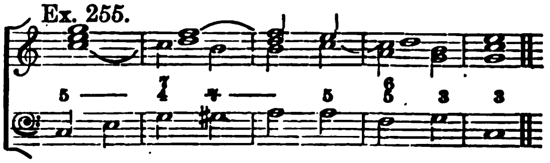
Ex. 253.



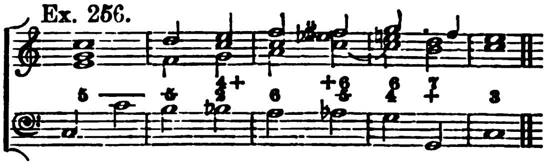
Ex. 254.



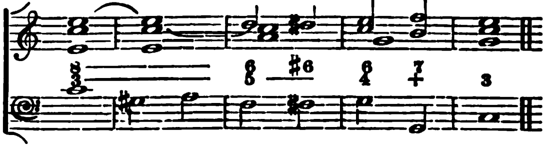
Ex. 255.



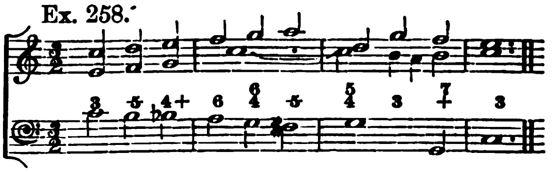
Ex. 256.



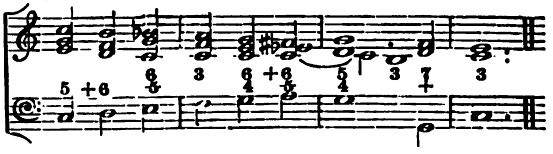
Ex. 257.



Ex. 258.



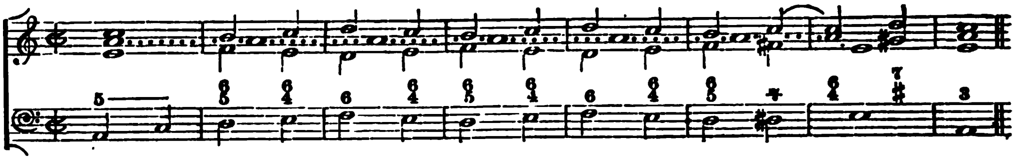
Ex. 259.



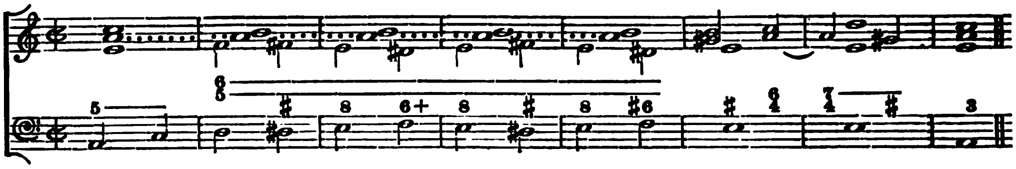
The preceding examples may be applied to the minor mode.

Other examples in the minor mode :—

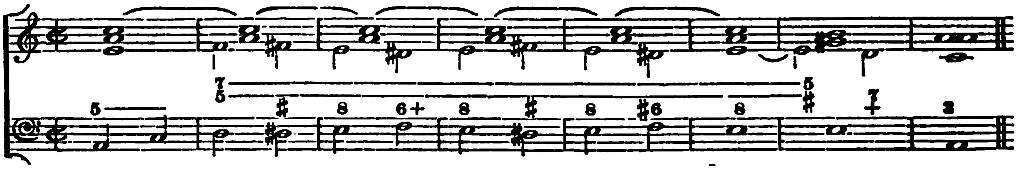
Ex. 260.



Ex. 261.

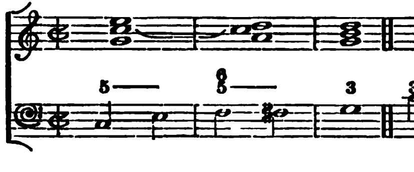


Ex. 262.

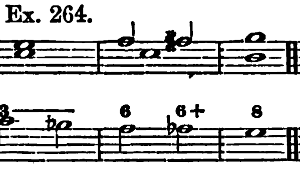


Progressions of the bass to bring in a repose (or pause) on the dominant :—

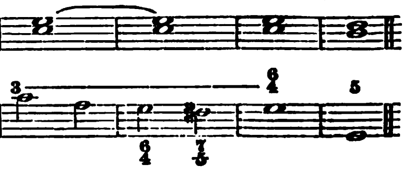
Ex. 263.



Ex. 264.

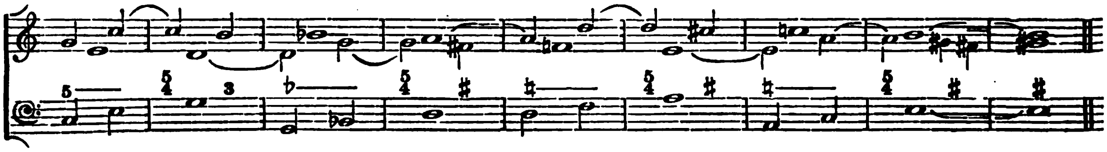


Ex. 265.



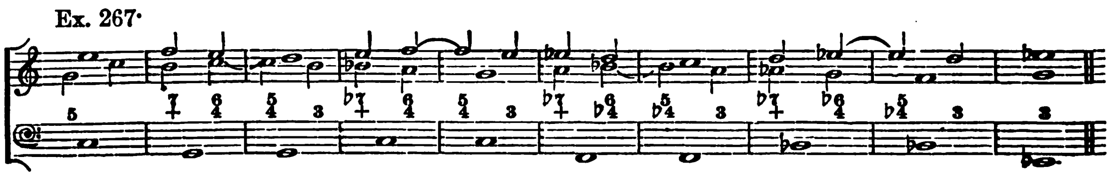
A series of cadences on the dominant :—

Ex. 266.



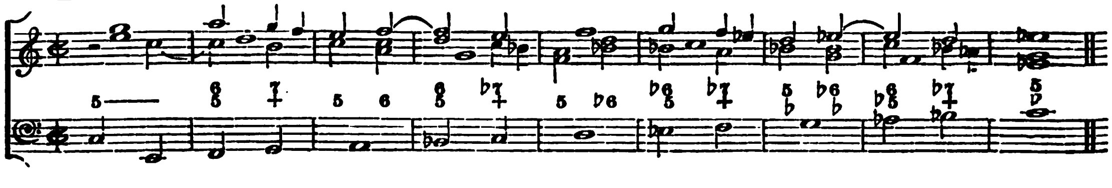
A series of avoided cadences :—

Ex. 267·



A series of broken cadences :—

Ex. 268.

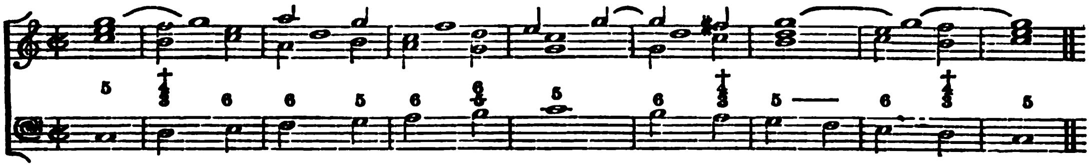


ARTICLE IX.

The Different Procedures of the Bass throughout the extent of the Diatonic Scale; with the Natural Harmony, and the Dissonant Progressions, most in use.

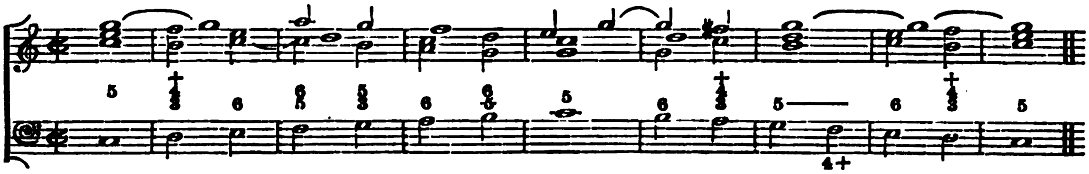
Rule of the octave in the major mode, with the single natural chords :—

Ex. 269.



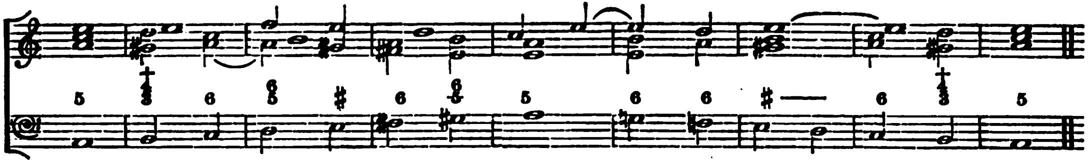
The same, with the discord of the fifth on the fourth degree ascending :—

Ex. 270.



The same in the minor mode :—

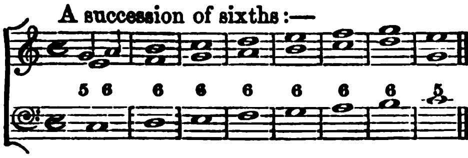
Ex. 271.



Simple Harmony.

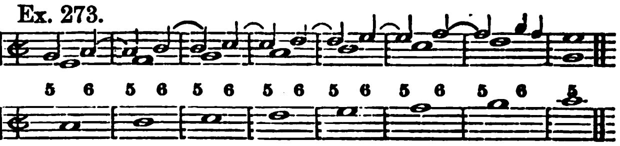
A succession of sixths :—

Ex. 272.

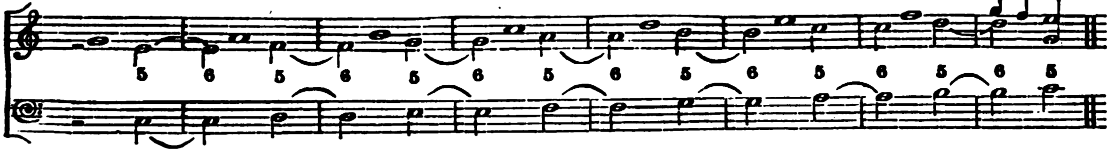


The sixths retarded by fifths :—

Ex. 273.

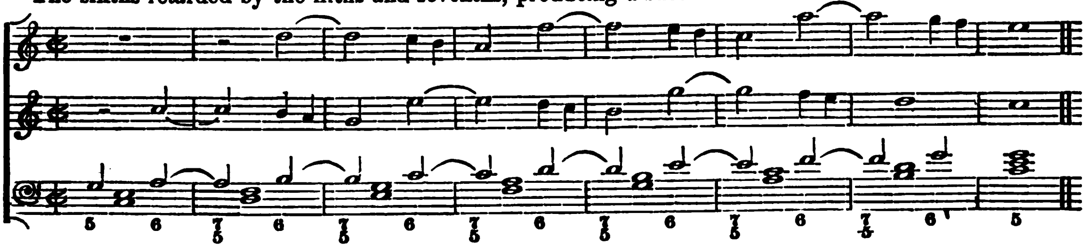


The same passage with syncopations :—



The sixths retarded by the fifths and sevenths, producing a succession of sevenths :—

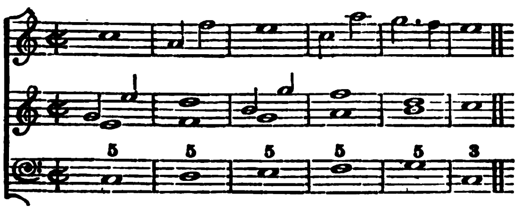
Ex. 274.



Simple Harmony.

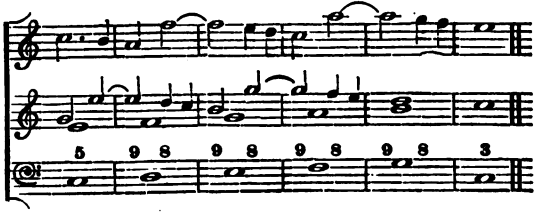
A succession of Common Chords :—

Ex. 275.



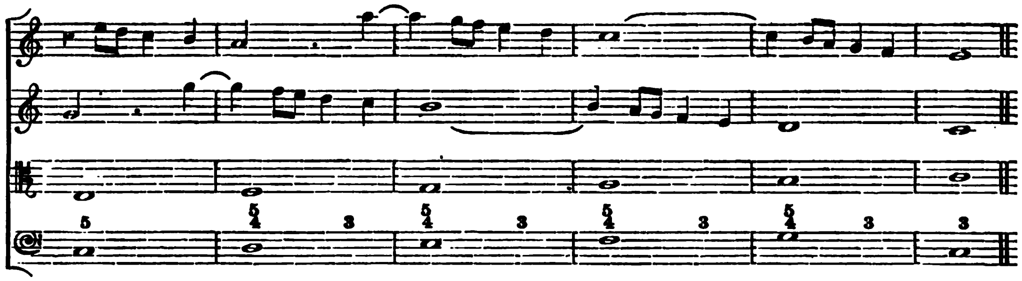
Retardation of the octave, producing a succession of ninths :—

Ex. 276.



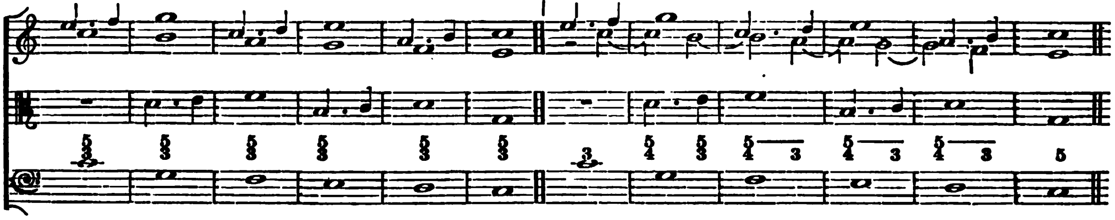
Retardation of the octave of the third, producing a succession of elevenths :—

Ex. 277.



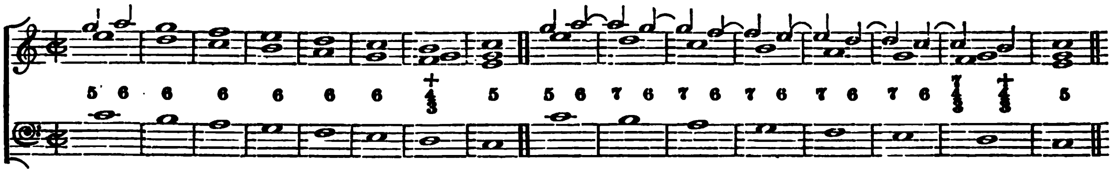
Simple Harmony. A succession of Common Chords. :—
Ex. 278.

Retardation of thirds, producing a succession of fourths and fifths :—
Ex. 279.

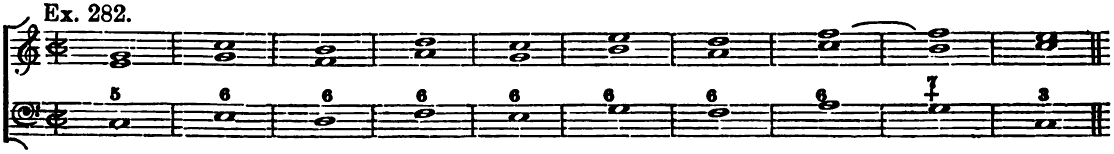


Simple Harmony. A succession of sixths :—
Ex. 280.

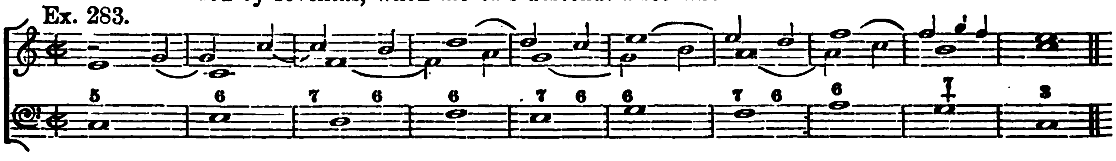
The sixths retarded by sevenths, producing a succession of sevenths :—
Ex. 281.



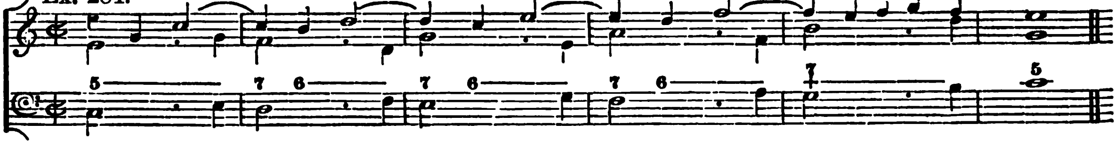
Simple Harmony. A succession of sixths :—
Ex. 282.



The sixths retarded by sevenths, when the bass descends a second :—
Ex. 283.

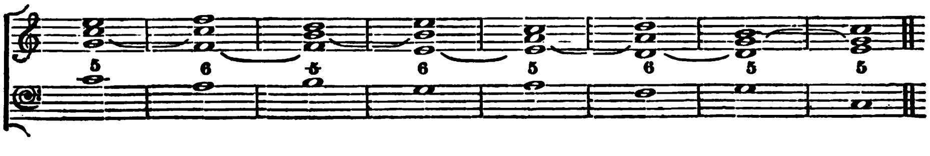


The same passage more close :—
Ex. 284.



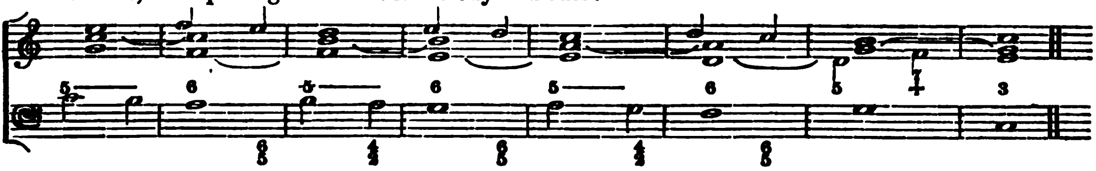
Simple Harmony. A succession of common chords and sixths :—

Ex. 285.



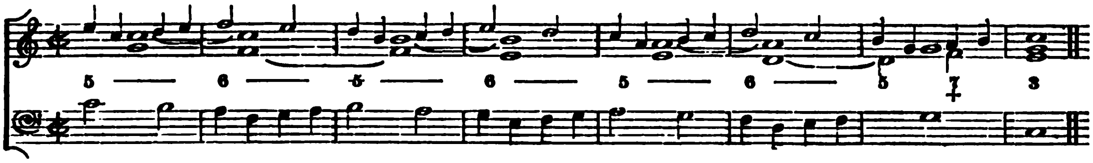
The same, with passing notes in the melody and bass :—

Ex. 286.



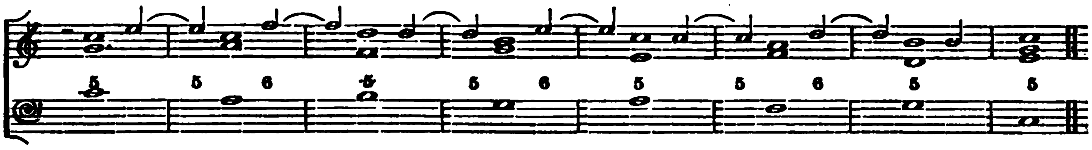
The same, differently treated :—

Ex. 287.



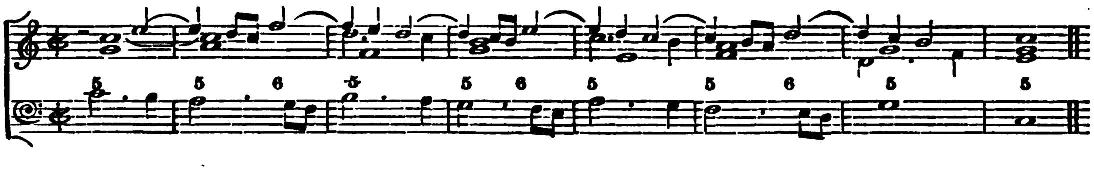
The sixths retarded by fifths :—

Ex. 288.



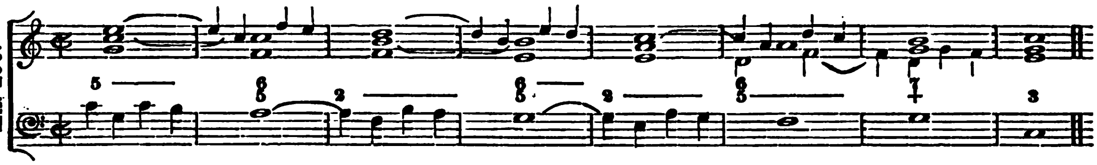
The same passage made more florid :—

Ex. 289.



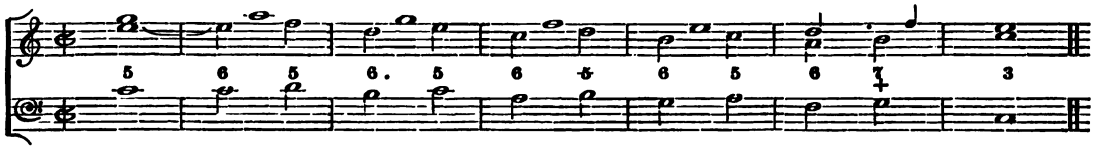
Succession of fifths, sixths, and seconds :—

Ex. 290.



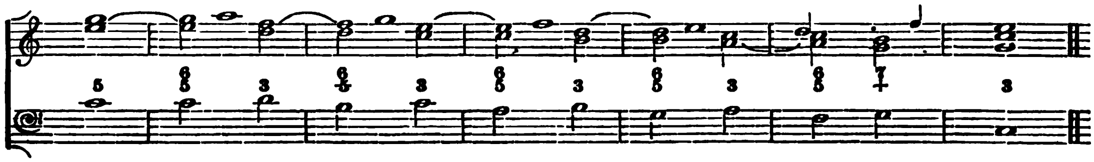
SIMPLE HARMONY. Succession of sixths and common chords :—

Ex. 291.



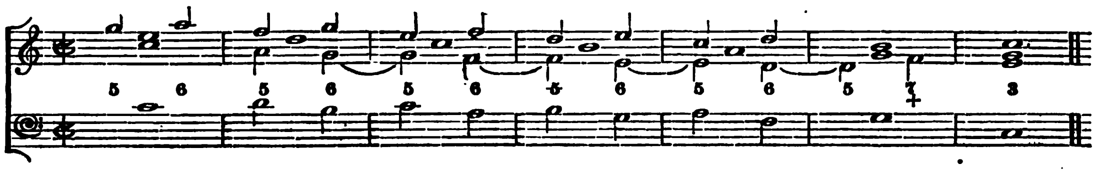
The discord of a fifth in the chord of the sixth, producing a succession of fifths and sixths :—

Ex. 292.



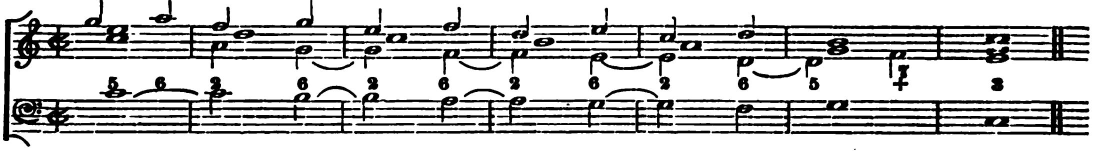
SIMPLE HARMONY. A succession of common chords and sixths :—

Ex. 293.



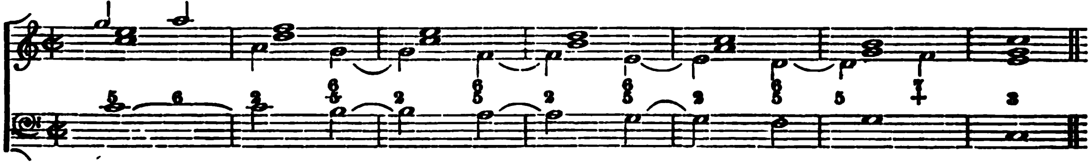
The discord of a second under the common chord, producing a series of seconds :—

Ex. 294.



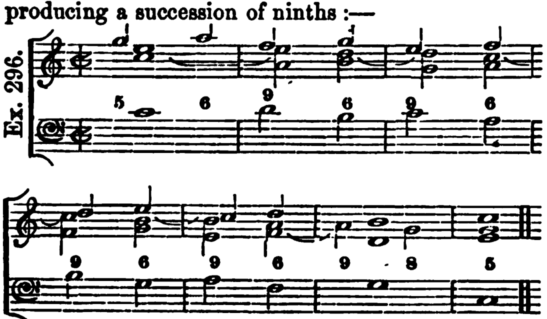
The discord of a second under the common chord, and of a fifth in the chord of the sixth, producing a succession of seconds, sixths, and fifths :—

Ex. 295.



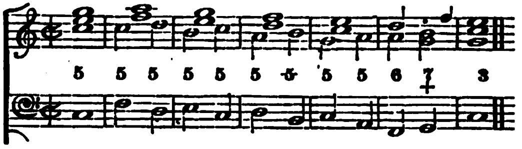
Retardation of the octave in the common chord, producing a succession of ninths :—

Ex. 296.



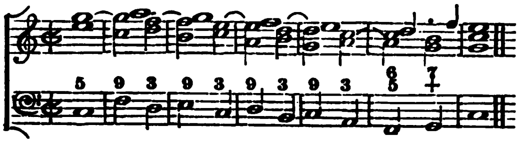
SIMPLE HARMONY. A succession of common chords :—

Ex. 297.



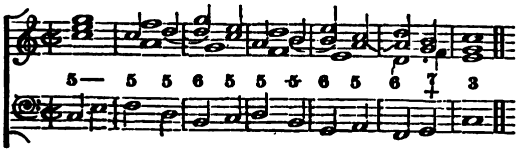
Retardation of the octave, producing a succession of ninths :—

Ex. 298.



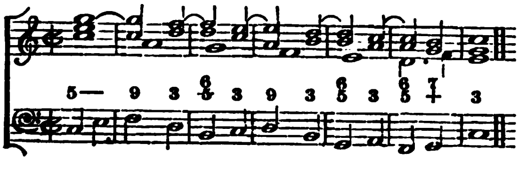
SIMPLE HARMONY. A succession of common chords and sixths :—

Ex. 299.



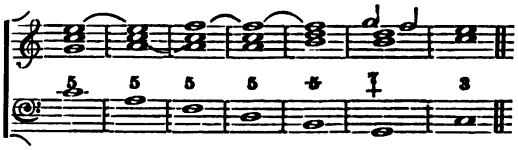
The discord of a ninth on the common chord, and of a fifth in the chord of the sixth :—

Ex. 300.



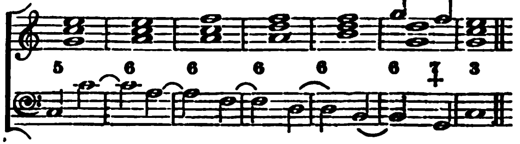
SIMPLE HARMONY. A succession of common chords :—

Ex. 301.



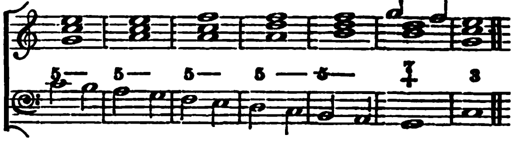
Retardation of the bass, producing a succession of consonant syncopations :—

Ex. 302.



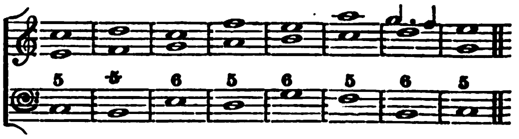
The interval of a third in the bass, filled up by a passing note :—

Ex. 303.



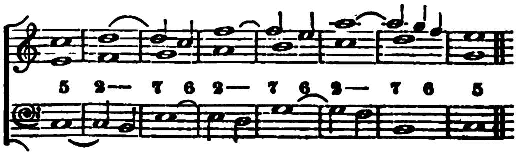
SIMPLE HARMONY. A succession of common chords and sixths :—

Ex. 304.



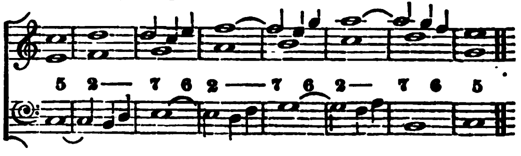
Retardation of the common chord in the bass, and of the sixth in the melody, producing a succession of seconds and sevenths :—

Ex. 305.



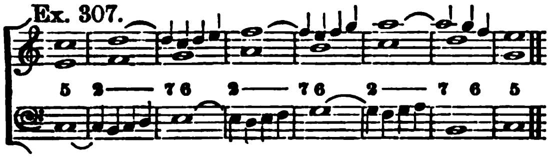
The same passage :—

Ex. 306.



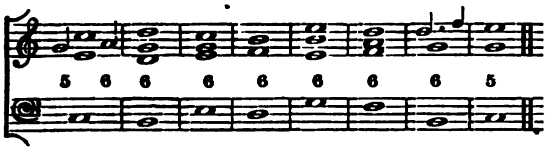
The same passage, in which the leap of a fourth is filled up :—

Ex. 307.



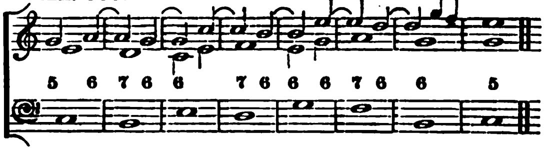
Simple Harmony. A succession of sixths :—

Ex. 308.



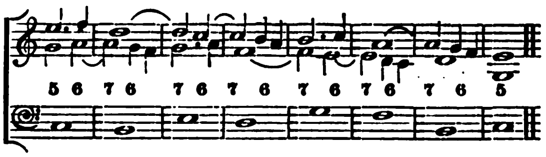
Retardation of the sixth, causing a succession of sevenths at every other bar :—

Ex. 309.



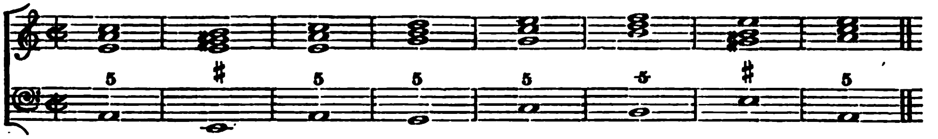
Retardation of the sixth, causing a succession of sevenths at every bar :—

Ex. 310.



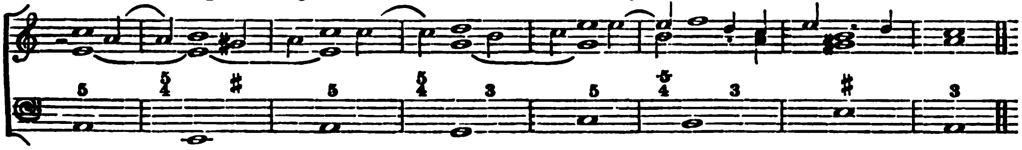
Simple Harmony. A succession of common chords :—

Ex. 311.



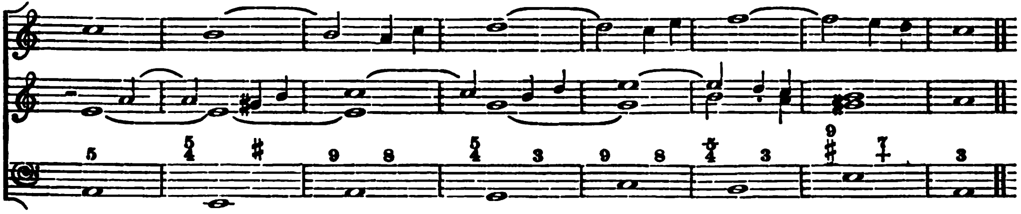
Retardation of the third, producing a discord of the fourth at every other bar :—

Ex. 312.



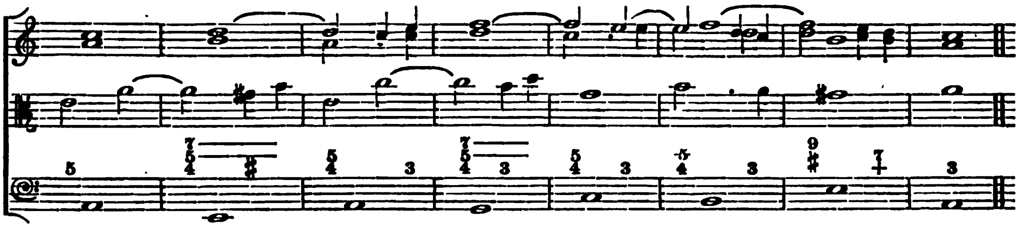
Retardation of the third and octave, producing discords of the fourth and ninth alternately :—

Ex. 313.



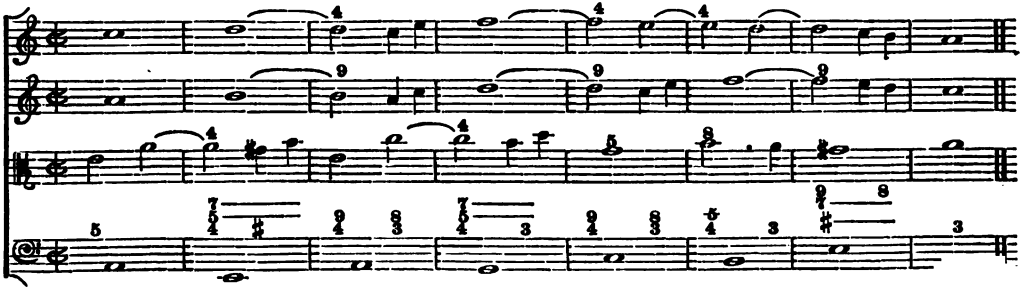
Retardation of the third in the dominant seventh and in the common chord :—

Ex. 314.



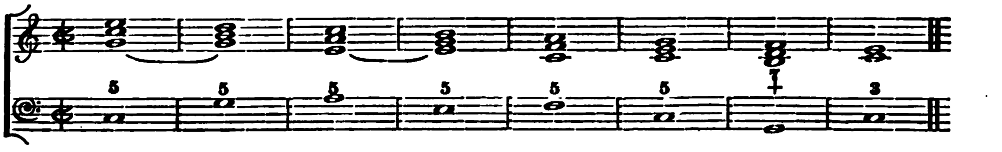
Retardation of the third in the dominant seventh, and of the third and octave in the common chord :—

Ex. 315.



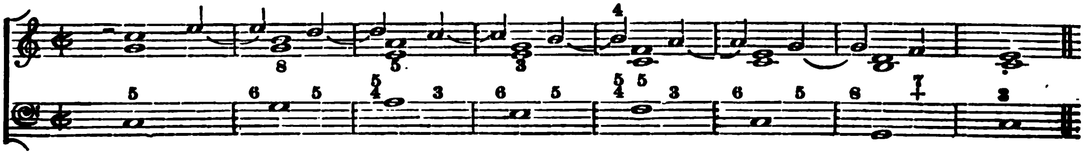
Simple Harmony. A succession of common chords:—

Ex. 316.



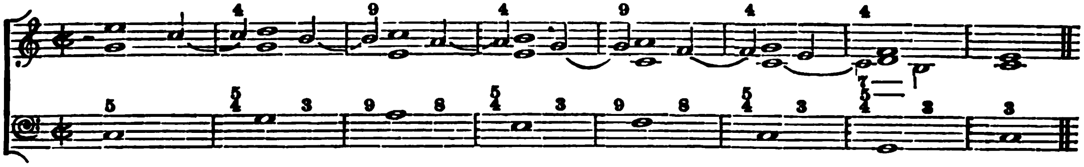
Retardation of the first part, making a succession of sixths, and five-fours alternately:—

Ex. 317.



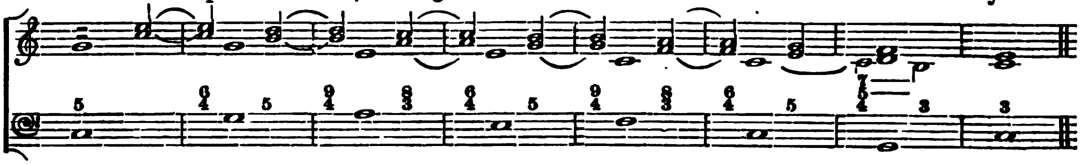
Retardation of the second part, making a succession of five-fours and ninths alternately:—

Ex. 318.



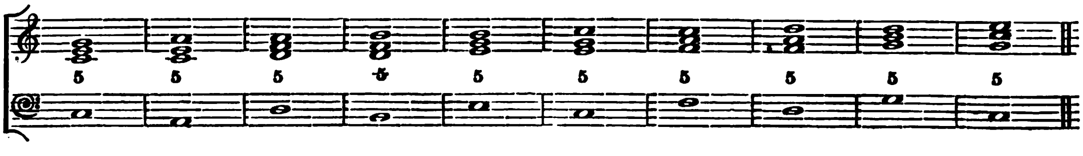
Retardation of two parts at a time, making a succession of six-fours and of nine-fours alternately:—

Ex. 319.



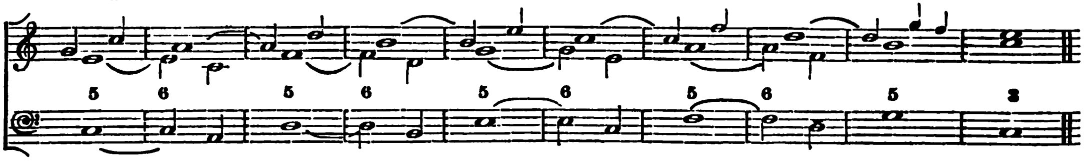
Simple Harmony. A succession of common chords:—

Ex. 320.



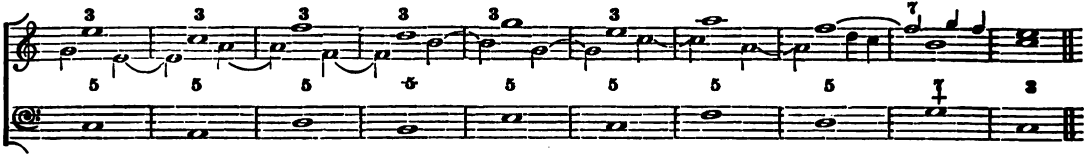
The same passage, with consonant syncopations in all the parts:—

Ex. 321.



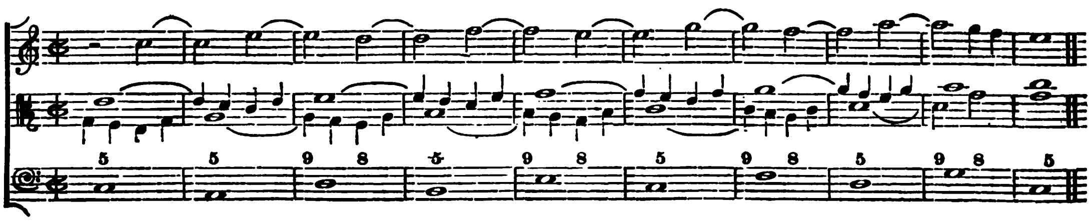
The same, with consonant syncopations in the second part:—

Ex. 322.



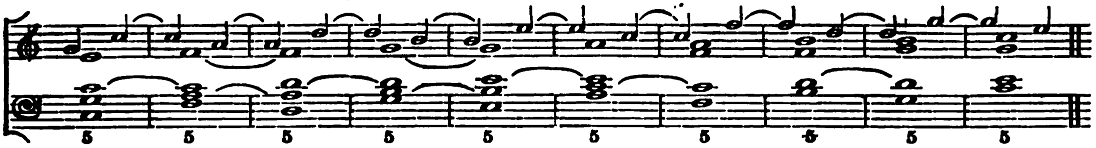
The same passage, wherein the octave is retarded in the first part, and the two intermediate parts are made florid by passing notes:—

Ex. 323.



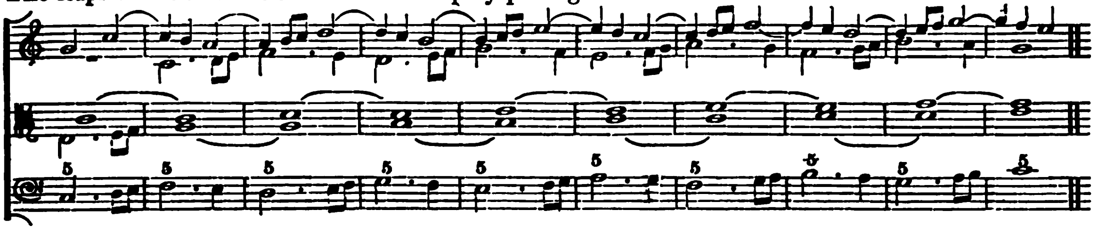
Simple Harmony. Consonant syncopations in the first part :—

Ex. 324.



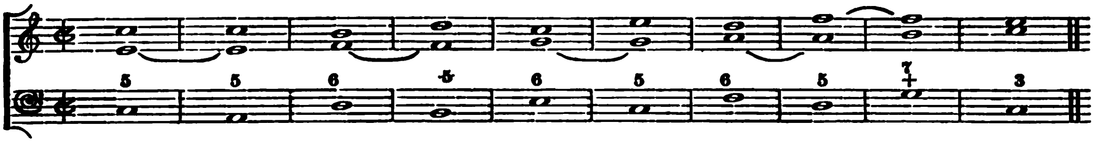
The leaps of a fourth and of a third filled up by passing notes :—

Ex. 325.



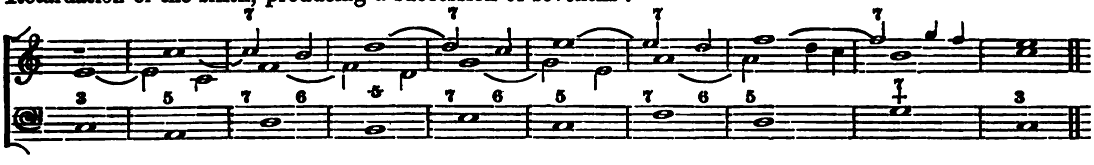
Simple Harmony. A succession of common chords and sixths :—

Ex. 326.



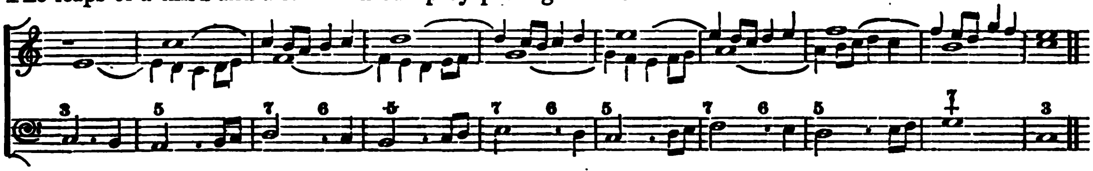
Retardation of the sixth, producing a succession of sevenths :—

Ex. 327.



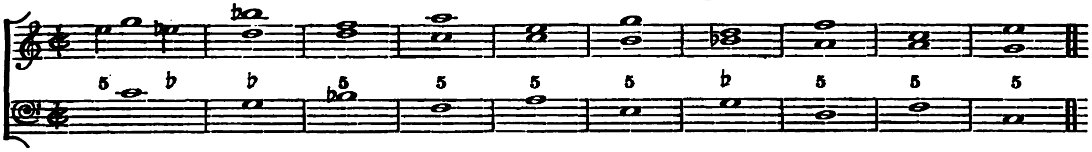
The leaps of a third and a fourth filled up by passing notes :—

Ex. 328.



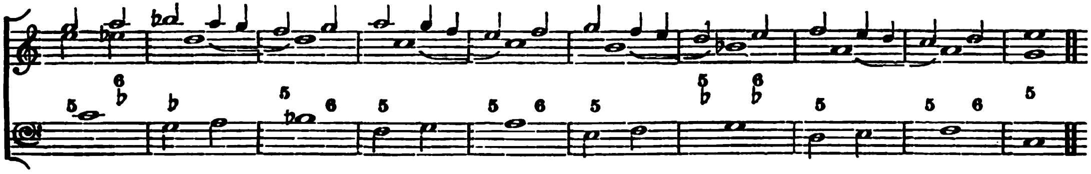
Simple Harmony. A succession of common chords. In this example the key is not determined :—

Ex. 329.



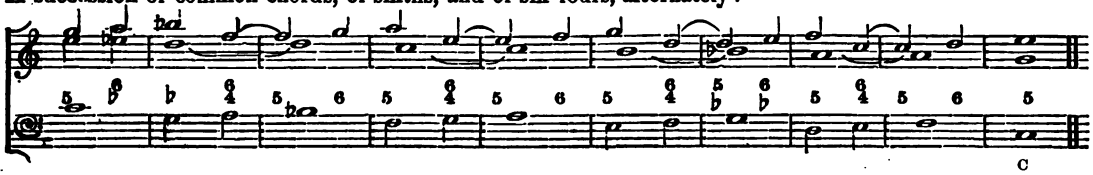
The leaps of a third and a fourth filled by passing notes :—

Ex. 330.



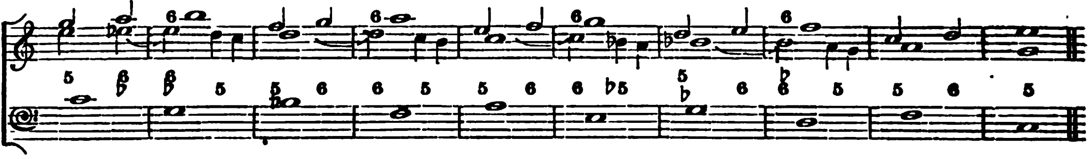
A succession of common chords, of sixths, and of six-fours, alternately :—

Ex. 331.



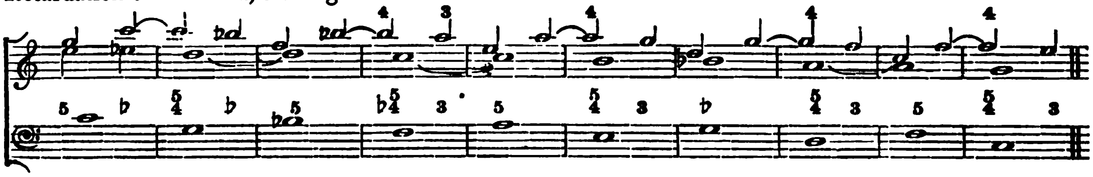
Retardation of the fifth by the sixth :—

Ex. 332.



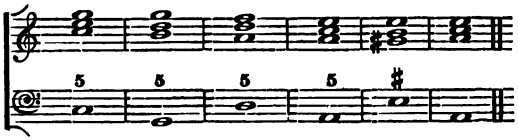
Retardation of the third, making a discord of the fourth :—

Ex. 333.



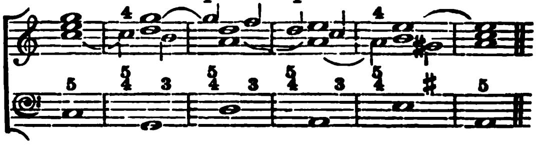
Simple Harmony.
A succession of common chords :—

Ex. 334.



Retardation of the thirds, producing a succession of five-fours :—

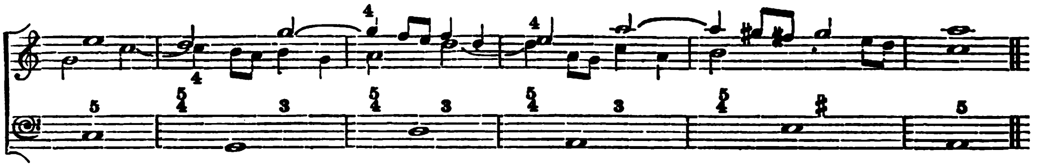
Ex. 335.



This example concludes in the relative key.

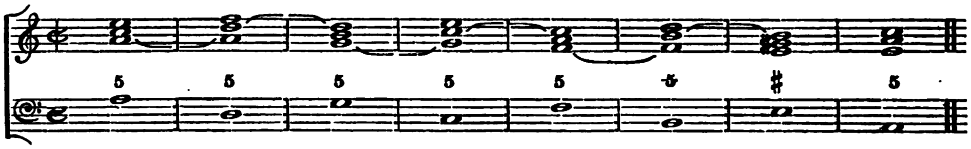
The two first parts made florid by passing notes :—

Ex. 336.



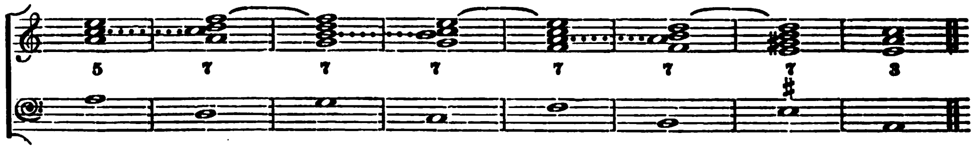
Simple Harmony. A succession of common chords :—

Ex. 337.



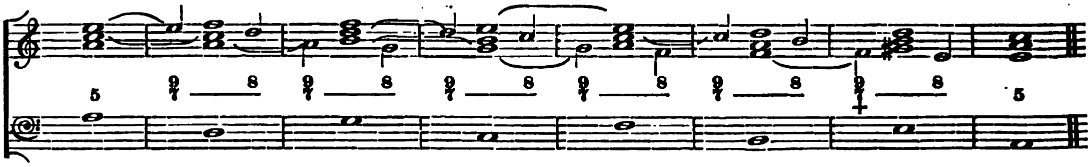
Prolongation of the seventh on the common chord :—

Ex. 338.



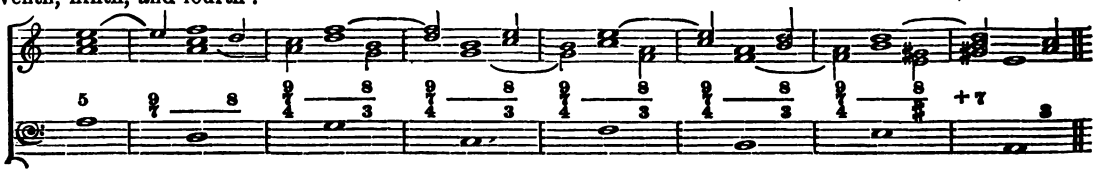
Prolongation of the seventh, and retardation of the octave, producing a double discord of the seventh and ninth :—

Ex. 339.



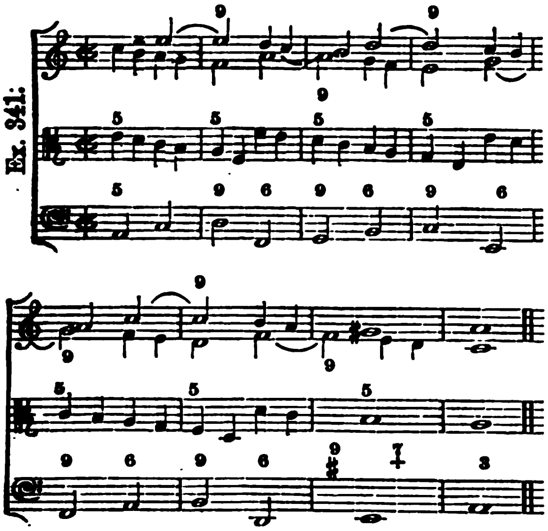
Prolongation of the seventh, with retardation of the octave and third, producing a triple discord of the seventh, ninth, and fourth :—

Ex. 340.



Retardation of the octave, causing a succession of ninths:—

Ex. 341.



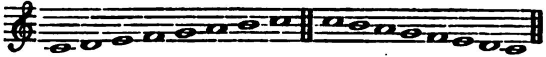
ARTICLE X.

Genera.

There are three genera:—the Diatonic, the Chromatic, and the Enharmonic.

The diatonic genus proceeds by natural tones and semitones; that is to say, without alteration: thus, the two semitones which are found in the scale, are of the diatonic genus; and the scale, either ascending or descending, is called the diatonic gamut or scale:—

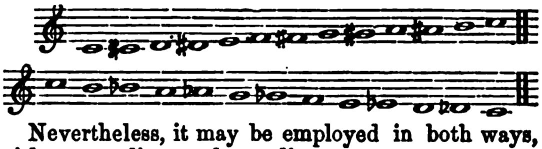
Ex. 342.



The chromatic genus proceeds only by semitones; thus, a scale ascending or descending by semitones, is called the chromatic gamut or scale.

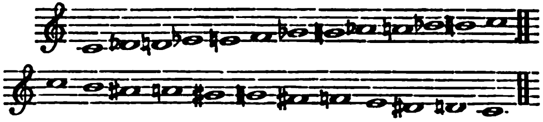
In ascending, the chromatic by sharps is employed; and in descending, the chromatic by flats, as being the most natural way:—

Ex. 343.



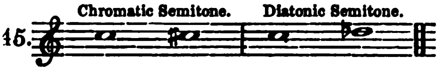
Nevertheless, it may be employed in both ways, either ascending or descending:—

Ex. 344.



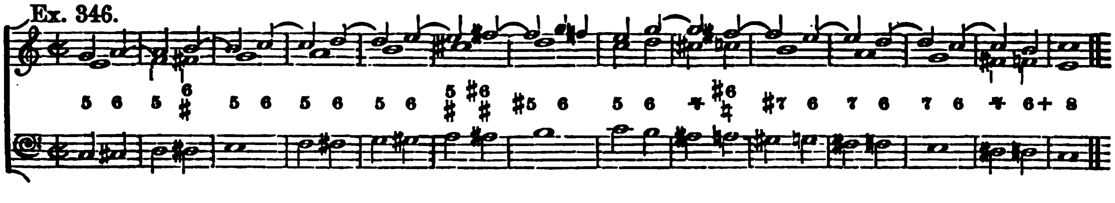
Although a succession of semitones is called chromatic, yet the chromatic semitone, properly speaking, is only the semitone that exists between one note and the same note, subjected to alteration; while the diatonic semitone is that which exists between one note and another:—

Ex. 345.



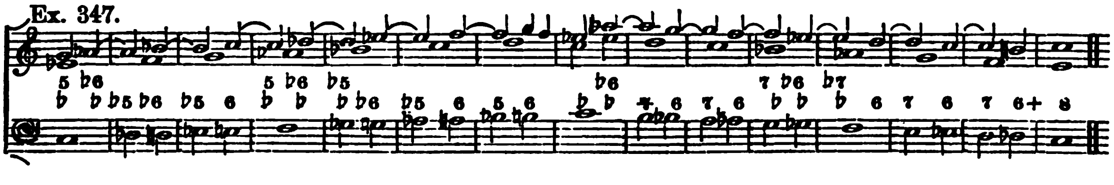
Chromatic scale by sharps:—

Ex. 346.



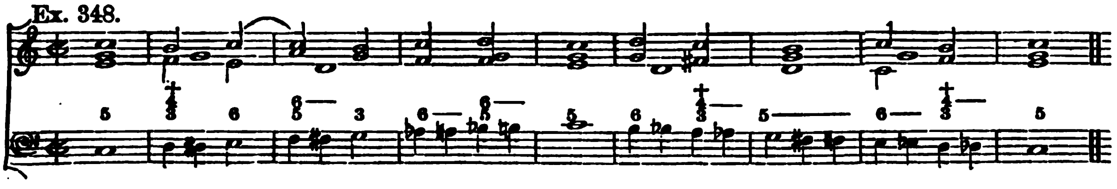
Chromatic scale by flats:—

Ex. 347.



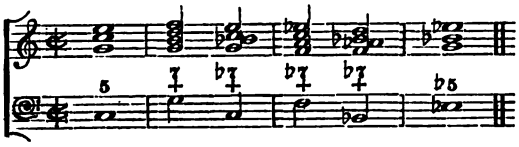
Another chromatic scale:—

Ex. 348.



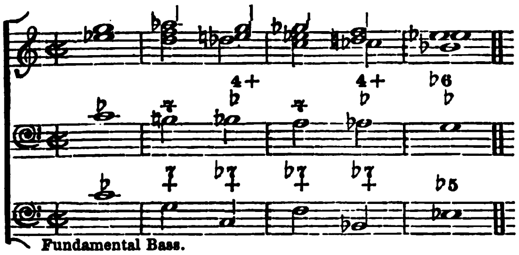
Chromatic succession produced by a series of avoided cadences:—

Ex. 349.



The same by diminished sevenths. In this succession all the parts proceed by chromatic progression:—

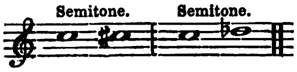
Ex. 350.



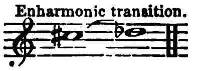
The enharmonic genus is the transition of one note to another, without its intonation undergoing any perceptible change.

For instance, from C to C♯ a semitone is reckoned, and from C to D♭ a semitone is also reckoned; these two sounds have therefore the same intonation, according to the temperament; thus, if after a D♭ comes a C♯, or after a C♯ a D♭, these two notes will not sustain any perceptible change of intonation, although their names be changed. The transition of one of these notes to the other is called *enharmonic*:—

Ex. 251.

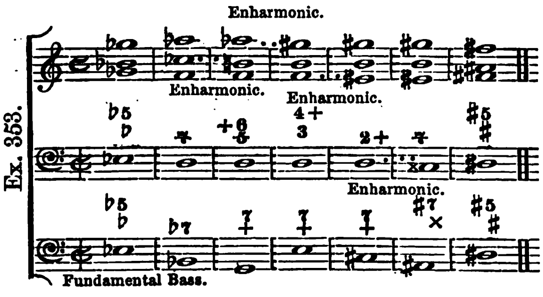


Ex. 252.



The chord of the diminished seventh is that which naturally produces the enharmonic genus, since it may be presented under four different aspects, without its undergoing any perceptible change of intonation:—

Ex. 353.



This example begins in E♭ minor; at the third bar the C♭ becomes B♮; at the fourth bar the A♭ becomes G♯; at the fifth bar the F becomes E♯; at the sixth bar the D becomes C×; and the example concludes in D♯ minor, which is the corresponding key to that of E♭ minor, the one in which it commenced.

It should be observed, that it is always the discord of the diminished seventh, which undergoes alteration, and which produces the enharmonic transition.

The succession of the fundamental bass notes, demonstrates that it is a series of interrupted cadences which has introduced the transition.

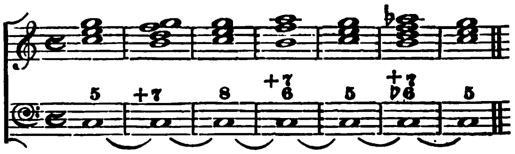
ARTICLE XI.

PEDAL.

A pedal, or pedal-point, is a prolonged note in the bass, upon which are introduced chords, that are alien to it, but that from time to time contain this note, otherwise the effect of the pedal would be unpleasing.

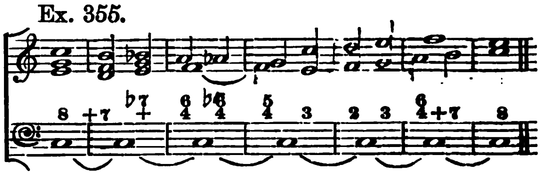
A pedal should occur either on the tonic, or on the dominant. The pedal on the tonic is especially suited to introduce the chord of the dominant seventh, that of the imperfect seventh, and that of the diminished seventh, because all these chords being resolved on the tonic, the pedal note frequently forms part of the harmony:—

Ex. 354.



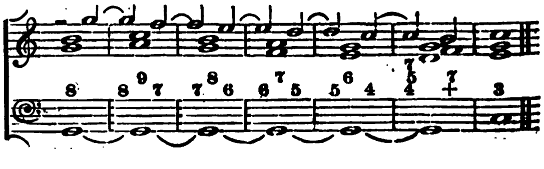
Modulations may be made on the pedal, by considering it alternately as a tonic and as a dominant:—

Ex. 355.

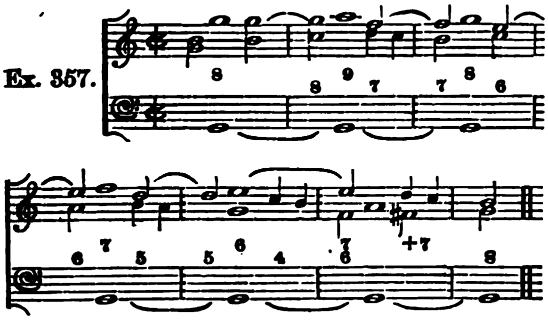


The pedal on the dominant is a vehicle for all the consonant and dissonant progressions. It should commence by a pause on the dominant, and finish with the perfect cadence, or close on the dominant:—

Ex. 356.

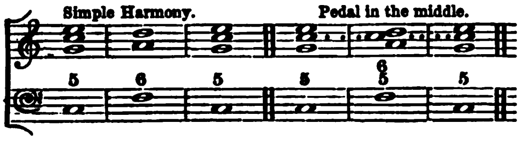


Ex. 357.



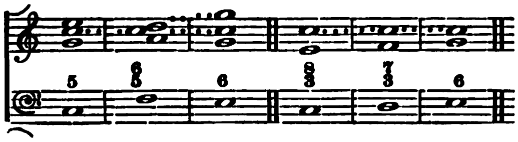
The pedal takes place in the lowest part, and the harmony above it should be at as great a distance as possible. Nevertheless, there are cases, where a pedal may be placed in the middle part of the harmony, or even in the highest part, provided the prolonged note form a portion of the following chord :—

Ex. 358.

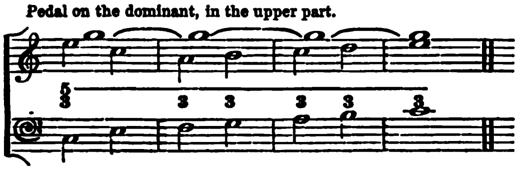


When a pedal—either in the middle, or highest part—forms an interval of a second or seventh, with one of the notes of the chord, this note must not connect itself with the pedal note by unison or octave, but must be separated from it by a consonant interval :

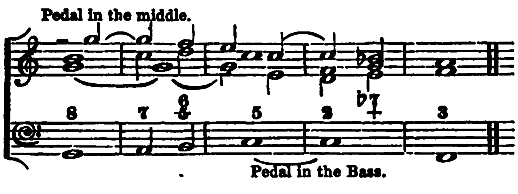
Ex. 359.



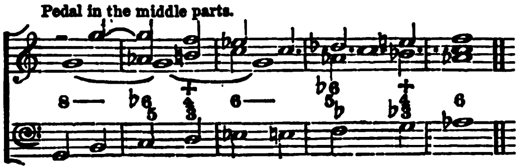
Ex. 360.



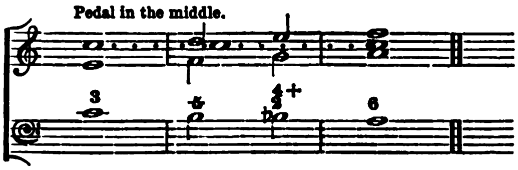
Ex. 361.



Ex. 362.



Ex. 363.

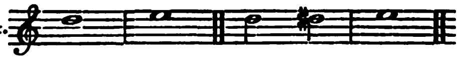


ARTICLE XII.

ALTERATIONS.

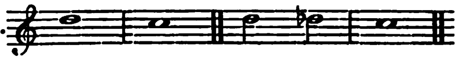
One or more notes of a chord may be altered, when this alteration leads the note in its due course. For instance, if the D is to ascend to E, it can, after touching upon the D♮, pass to the D♯, which leads to E :—

Ex. 364.



But if the D is to descend to C, instead of being altered by a ♯, it should be altered by a ♭ :—

Ex. 365.

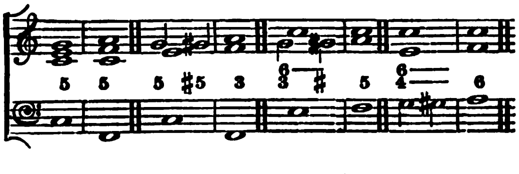


Every chord may be subjected to one or more alterations.

MAJOR COMMON CHORD, ALTERED.

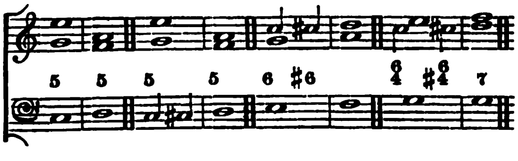
The major common chord may be altered in its fifth, when ascending; this alteration produces an interval of the extreme sharp fifth, and the chord consists of two major thirds. In the inversions, this alteration may equally take place :—

Ex. 366.



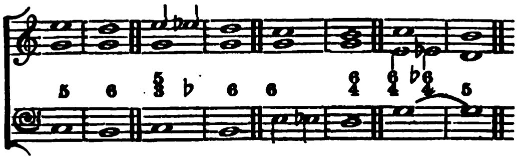
The major common chord may also be altered in its fundamental note, when ascending; in which case, the chord becomes diminished :—

Ex. 367.



The major common chord may likewise be altered in its third, when descending; in which case, the chord becomes minor :—

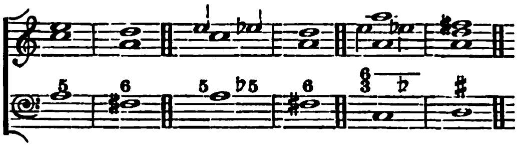
Ex. 368.



Minor Common Chord, altered.

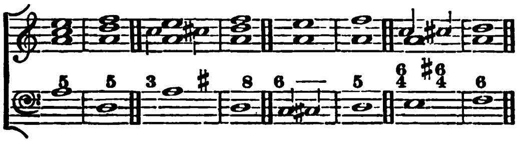
The minor common chord may be altered in its fifth, when descending; in which case the chord becomes diminished :—

Ex. 369.



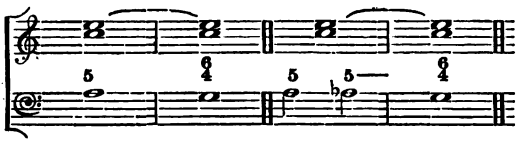
In may also be altered in its third, when ascending; in which case, the chord becomes major :—

Ex. 370.

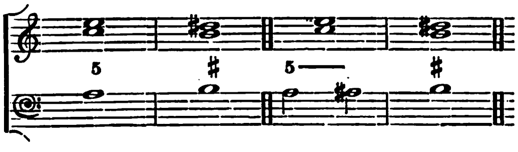


It may likewise be altered in its fundamental note, either when descending or ascending. The alteration, when descending, produces a superfluous fifth; and when ascending, it produces a diminished third and diminished fifth :—

Ex. 371.

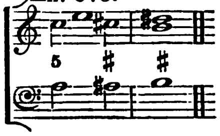


Ex. 372.



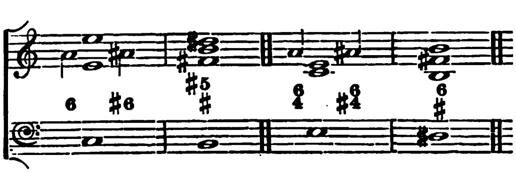
In order to avoid the interval of a diminished third, the third should be altered at the same time as the fundamental note :--

Ex. 373.



As the inversion of the diminished third forms an interval of a superfluous sixth, the best method of employing this alteration is to present the chord as a sixth (inversion), and in this way it is an alteration frequently used :—

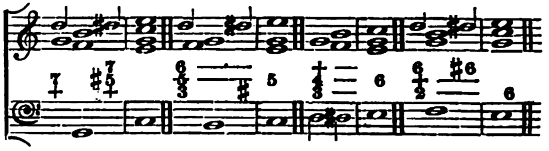
Ex. 374.



Chord of the Dominant Seventh, altered.

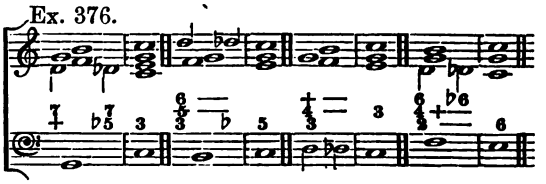
The chord of the dominant seventh may be altered in its fifth, either when ascending or descending, by taking care to invert the diminished third into a superfluous sixth :—

Ex. 375.



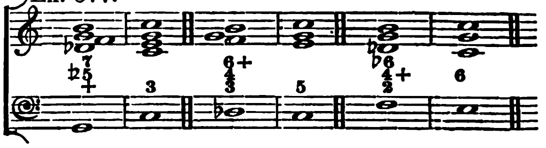
When the dominant seventh is altered in its fifth descending, this alteration which (in the key of C) changes the D natural into D flat, announces the key of F minor; and the common chord of C is no other than a pause on the dominant :—

Ex. 376.



This alteration may take place without being preceded by the natural note :—

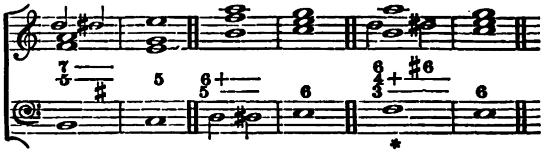
Ex. 377.



Chord of the Imperfect Seventh, altered.

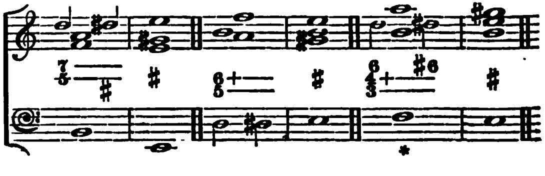
The chord of the imperfect seventh may be altered in its third, when ascending, and by inverting the interval of the diminished third into that of the superfluous sixth :—

Ex. 378.



The same chord, considered as the seventh of the second in the minor mode, may be altered, by taking care to invert the diminished third into the superfluous sixth :—

Ex. 379.



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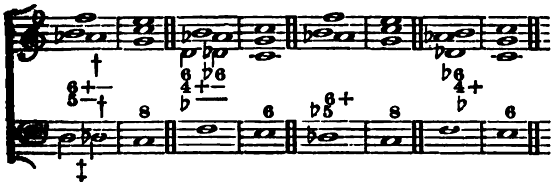
* This chord is known as that of the superfluous sixth and tritone.

Chord of the Diminished Seventh, altered.

The chord of the diminished seventh may be altered in its third, when descending.

This alteration is used only on the two first derivatives of the diminished seventh :—

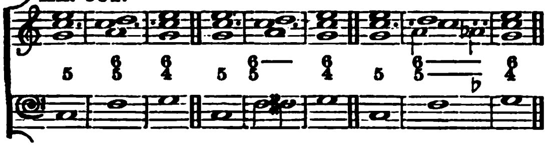
Ex. 380.



The common chord which follows the alteration of the diminished seventh, should be major; for this passage is no more than a pause on the dominant.

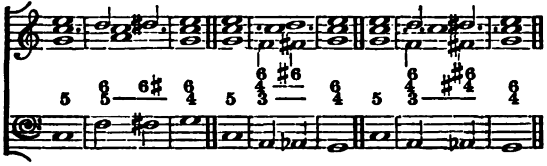
The prolongation of a note alien to a chord, does not prevent the notes of which this chord is formed, from undergoing the alterations proper to them :—

Ex. 381.



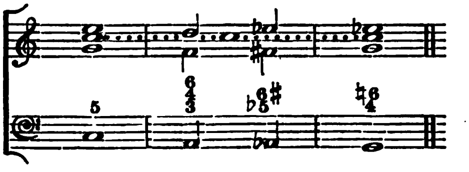
One, two, or even three notes of the chord may be altered, while the prolongation continues :—

Ex. 382.



In order to avoid the interval of the fourth doubly sharpened, which exists from the A♭ to the D♯, E♭ is written instead of D♯ :—

Ex. 383.



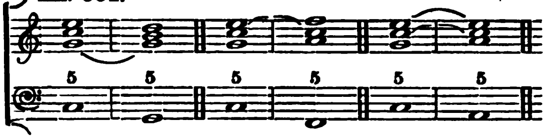
ARTICLE XIII.

Modulation.

Modulation is the passing from one key or mode into another.

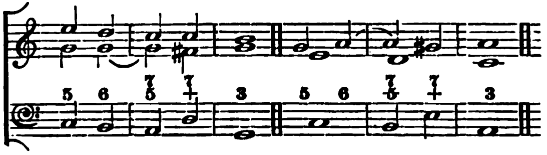
In order to render modulation pleasing, the common chord of the key quitted, should carry into the key entered, at least one note belonging equally to the two chords, which shall serve as a connection in the harmony :—

Ex. 384.



But a key is not determined by its common chord only: its leading note should also be present; wherefore, the best means of determining the key, is the perfect cadence, since that gives the leading note followed by the tonic :—

Ex. 385.



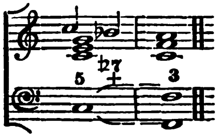
Modulation may be effected by fifths ascending or descending.

Each modulation by ascending fifths, introduces an additional sharp to the key.

Each modulation by descending fifths, introduces an additional flat to the key.

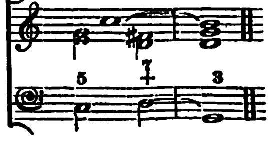
The most natural modulations are those by descending fifths; because, without the aid of any intermediate chord, the modulation may pass from C into F, from F into B flat, &c. The minor seventh only need be added to the major common chord, and it will become the chord of the dominant seventh, forming a perfect cadence by descending from the fifth on to the tonic; which cadence will completely determine the key :—

Ex. 386.



If, on the contrary, the modulation is by ascending fifths, the common chord of the key into which it goes, must be preceded by ts own dominant seventh :—

Ex. 387.



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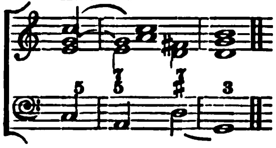
† The two successive fifths contained in this passage, are tolerated, provided they do not occur in the extreme parts; that is to say, between the highest part and the lowest part.

‡ This chord is known as that of the superfluous sixth and fifth.

It is necessary that this dominant should itself be connected with the preceding chord by several notes, and in this way it will be better introduced:

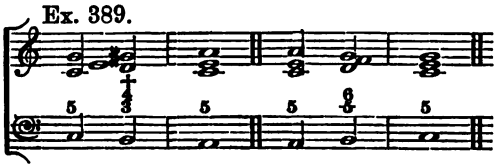
Ex. 388.



Thus, it is more simple, as well as more easy, to modulate by fifths descending, than by fifths ascending. Nevertheless, in any piece of music, the first modulation, when quitting the primitive key goes into the dominant, which is the fifth above; and the modulation into the subdominant, which is the fifth below, does not take place till afterwards.

Modulation into the relative key, is also one of the most simple, and most frequently used,—whether by passing from the major into its relative minor, or by passing from the minor into its relative major:—

Ex. 389.

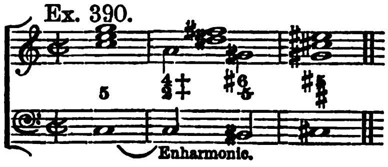


Observation.—Modulations are principally effected by means of cadences; and by avoiding or interrupting them. Beyond this, it is difficult to prescribe rules for modulation; the only one from which no deviation should be made, is, to satisfy the ear. It is the essential end of music; and rules are only created, in order that it shall be securely attained.

Modulations from C Major into all the Major and Minor Keys.

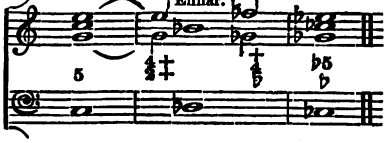
Ex. 390.

From C major to C♯ major.



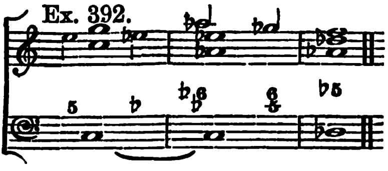
Ex. 391.

From C major to C♭ major.



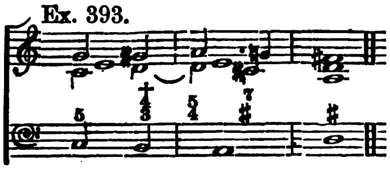
Ex. 392.

From C major into D♭ major.



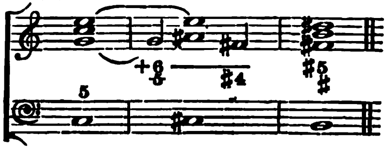
Ex. 393.

From C major into D major.



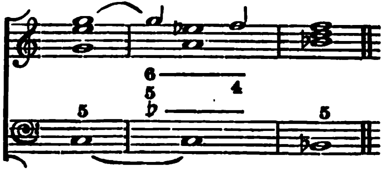
Ex. 394.

From C major into B major.



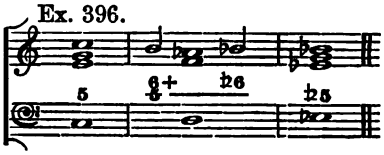
Ex. 395

From C major into B♭ major.



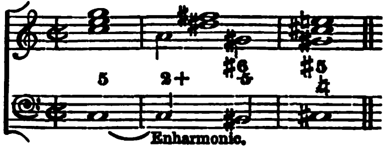
Ex. 396.

From C major into E♭ major.



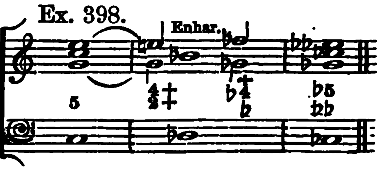
Ex. 397.

From C major into C♯ minor.



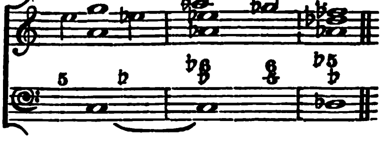
Ex. 398.

From C major into C♭ minor.



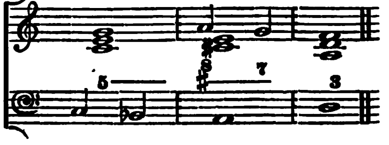
Ex. 399.

From C major into D♭ minor.



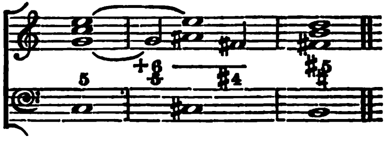
Ex. 400.

From C major into D minor.



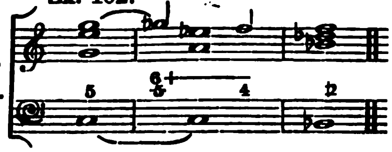
Ex. 401.

From C major into B minor.



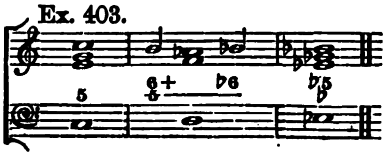
Ex. 402.

From C major into B♭ minor.



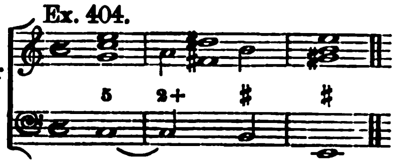
Ex. 403.

From C major into E♭ minor.



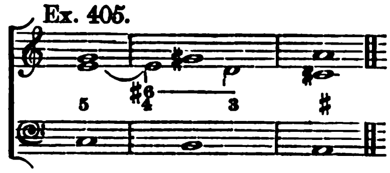
Ex. 404.

From C major into E major.



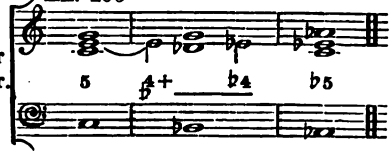
Ex. 405.

From C major into A major.



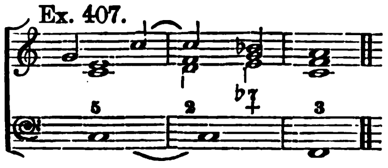
Ex. 406

From C major into A♭ major.



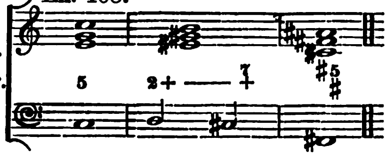
Ex. 407.

From C major into F major.



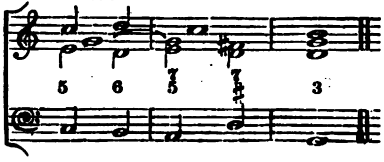
Ex. 408.

From C major into F♯ major.



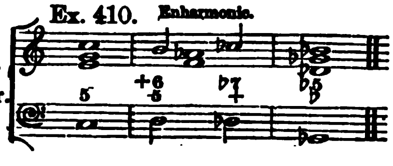
Ex. 409

From C major into G major.



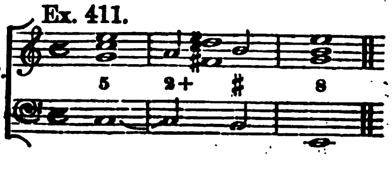
Ex. 410. Enharmonic.

From C major into G♭ major.



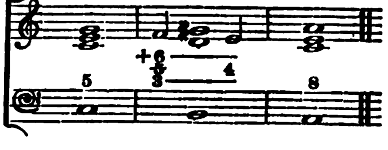
Ex. 411.

From C major into E minor.



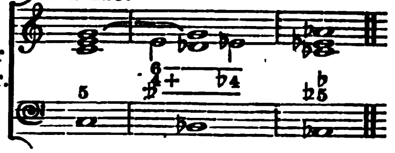
Ex. 412.

From C major into A minor.



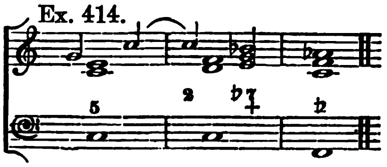
Ex. 413.

From C major into A♭ minor.



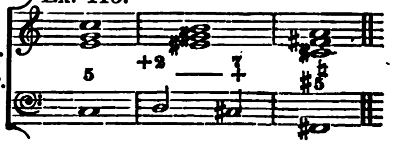
Ex. 414.

From C major into F minor.



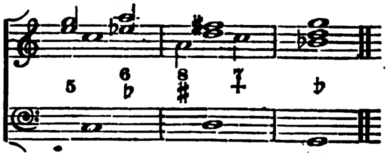
Ex. 415.

From C major into F♯ minor.



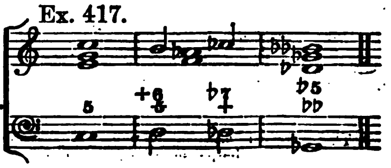
Ex. 416.

From C major into G minor.



Ex. 417.

From C major into G♭ minor.



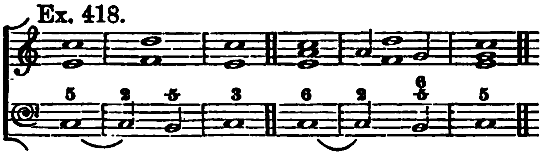
ARTICLE XIV.

On the Method of Figuring.*

The figures are placed on the notes of the bass, to represent the harmony.

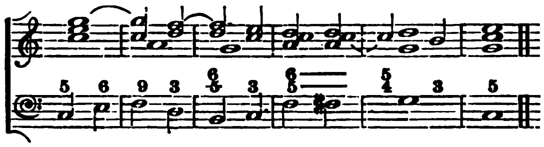
A figure not only represents the interval it designates, but it implies one or more others beside. For instance, a 2 implies $\begin{smallmatrix}4\\2\end{smallmatrix}$, and sometimes $\begin{smallmatrix}6\\4\\2\end{smallmatrix}$.

Ex. 418.



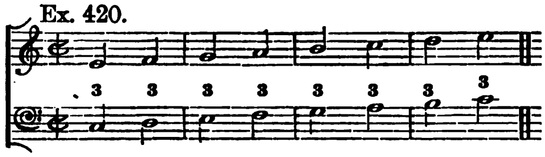
A 3 implies $\begin{smallmatrix}5\\3\end{smallmatrix}$, or $\begin{smallmatrix}8\\5\\3\end{smallmatrix}$. The common chord is figured by a 3, when the resolution of a discord takes place on the third:—

Ex. 419.

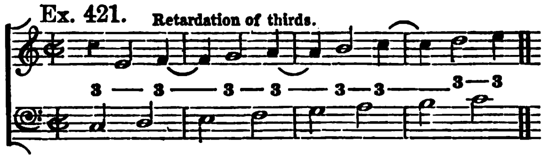


Nevertheless, when several thirds in succession are figured, no other note of accompaniment is requisite:—

Ex. 420.

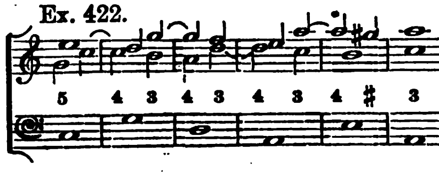


Ex. 421. Retardation of thirds.

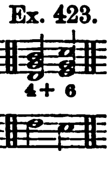


A 4 implies $\begin{smallmatrix}5\\4\end{smallmatrix}$; but a four attended by a cross (+ 4) indicates the chord of tritone, which is accompanied by a second and a sixth:—

Ex. 422.



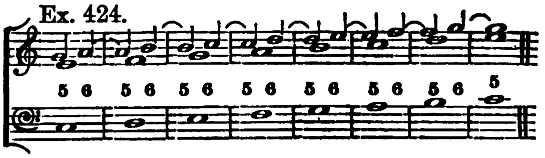
Ex. 423.



A 5 implies $\begin{smallmatrix}5\\3\end{smallmatrix}$.

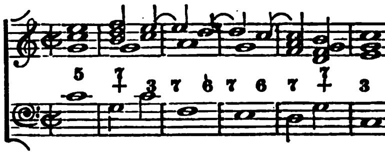
A 6 implies $\begin{smallmatrix}6\\3\end{smallmatrix}$:—

Ex. 424.

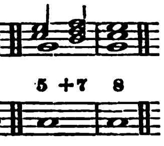


A 7 implies $\begin{smallmatrix}7\\3\end{smallmatrix}$, and sometimes $\begin{smallmatrix}7\\5\\3\end{smallmatrix}$; but the seven attended by a cross (+ 7), indicates the dominant seventh on the tonic, and then the 7 implies $\begin{smallmatrix}+7\\5\\4\\2\end{smallmatrix}$:—

Ex. 425.

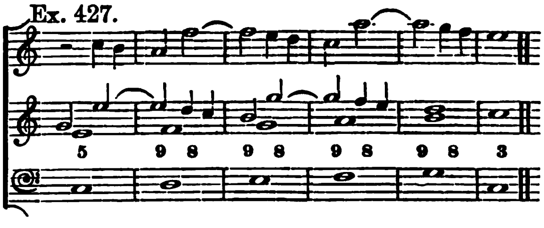


Ex. 426.



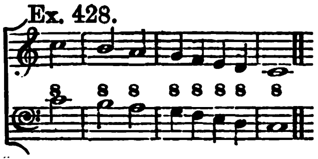
An 8 implies $\begin{smallmatrix}8\\5\\3\end{smallmatrix}$. The common chord is figured by an 8, when the resolution of a discord takes place on the octave. A 9 implies $\begin{smallmatrix}9\\5\\3\end{smallmatrix}$:—

Ex. 427.



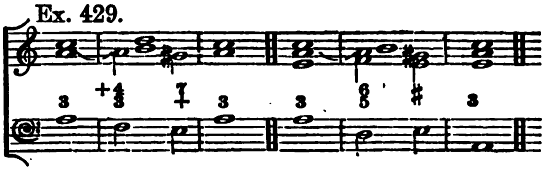
When several 8's follow in succession, they merely indicate unisons:—

Ex. 428.



Sometimes two figures imply one or more others beside. For instance, $\begin{smallmatrix}4\\3\end{smallmatrix}$ implies $\begin{smallmatrix}6\\4\\3\end{smallmatrix}$; and $\begin{smallmatrix}6\\5\end{smallmatrix}$ sometimes implies $\begin{smallmatrix}6\\5\\3\end{smallmatrix}$.

Ex. 429.



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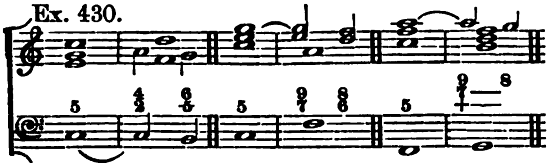
* This Article is essential for those who wish to accompany on the harpsichord (or pianoforte, or organ).

$\substack{4\\2}$ sometimes implies $\substack{6\\4\\2}$.

$\substack{9\\7}$ implies $\substack{9\\7\\3}$, and sometimes $\substack{9\\7\\5\\3}$:—

Ex. 430.

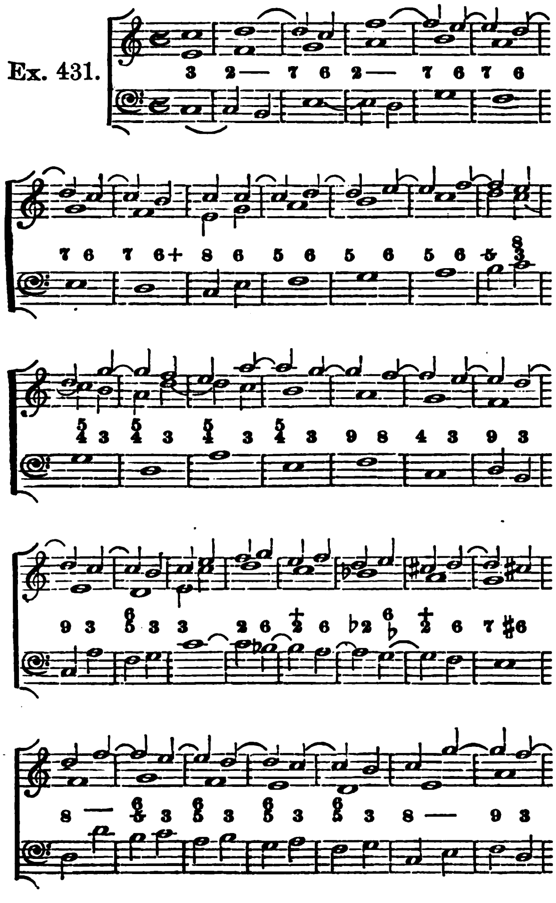


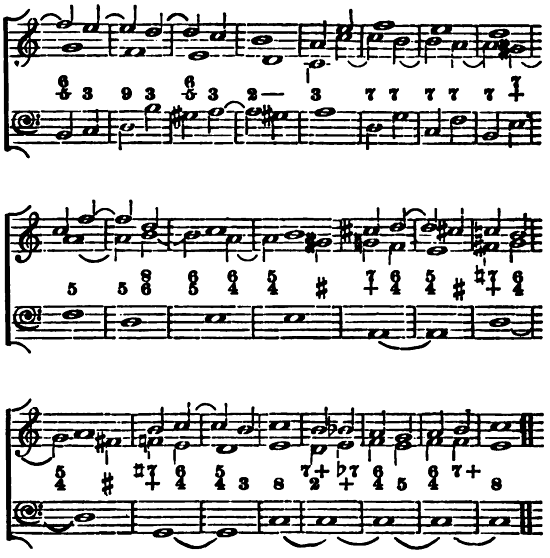
In order to avoid the difficulty of knowing whether it be requisite to add one or more intervals to the figure designated, the best way is to accompany in three parts only, adding no more than the most essential interval to each single figure; and to add more when there are two figures. By this means, no fault can be committed; since it is better to omit a note of little consequence in a chord, than to add one which does not belong to it.

Thus:—a 2 should be accompanieed by $\substack{4\\2}$; a 3 by $\substack{8\\3}$, or by $\substack{5\\3}$; a 4 by $\substack{5\\4}$; a +4 by $\substack{+4\\2}$; a 5 by $\substack{5\\3}$; a 6 by $\substack{6\\3}$; a 7 by $\substack{7\\3}$; a +7 by $\substack{+7\\2}$, or $\substack{+7\\4}$; an 8 by $\substack{8\\3}$; a 9 by $\substack{9\\3}$; and all the double figures, whatever they be, by adding nothing to them.

This method of proceeding can never lead to error; since the purest harmony is in three parts:—

Ex. 431.


3 2— 7 6 2— 7 6 7 6
7 6 7 6+ 8 6 5 6 5 6 5 6 $\substack{6\\5}$ $\substack{4\\3}$
$\substack{5\\4}$ 3 $\substack{5\\4}$ 3 $\substack{5\\4}$ 3 $\substack{5\\4}$ 3 9 8 4 3 9 3
9 3 $\substack{8\\5}$ 3 3 2 6 $\substack{+\\2}$ 6 ♭2 $\substack{6\\♭}$ $\substack{+\\2}$ 6 7 ♯6
8 — $\substack{6\\5}$ 3 $\substack{8\\5}$ 3 $\substack{6\\5}$ 3 $\substack{6\\5}$ 3 8 — 9 3


$\substack{6\\5}$ 3 9 3 $\substack{6\\5}$ 3 2— 3 7 7 7 7 7 $\substack{7\\+}$
5 5 $\substack{8\\6}$ $\substack{6\\5}$ $\substack{6\\4}$ $\substack{5\\4}$ ♯ $\substack{7\\+}$ $\substack{6\\4}$ $\substack{5\\4}$ ♯ $\substack{♮7\\+}$ $\substack{6\\4}$
$\substack{5\\4}$ ♯ $\substack{♮7\\+}$ $\substack{6\\4}$ $\substack{5\\4}$ 3 8 $\substack{7+\\2}$ $\substack{♭7\\+}$ $\substack{6\\4}$ 5 $\substack{6\\4}$ 7+ 8

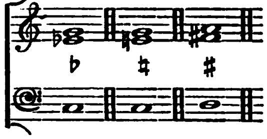
There are added, either before, over, or beneath the figures, particular marks, which alter certain intervals either expressed or implied by the figures.

These marks are:—the sharp, ♯; the flat, ♭; the natural, ♮; the cross, +; and the stroke aslant the figure, as, $\cancel{6}$.

The cross is a sign of augmentation, indicating a leading note, or a superfluous interval. The stroke is a sign of diminution, indicating a diminished interval.

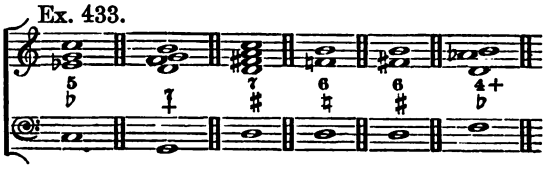
When one of these marks occurs unattended by a figure, it represents a third, which undergoes the alteration indicated by the mark:—

Ex. 432.



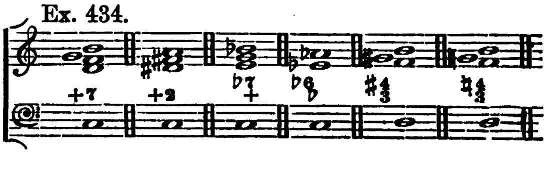
When the mark is beneath any figure, it represents a third, which it causes to undergo the alteration indicated:—

Ex. 433.



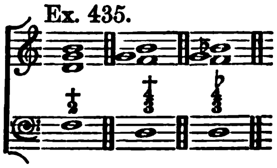
When the mark is before the figure, it alters the interval represented by the figure:—

Ex. 434.



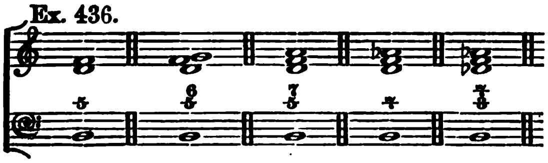
When the mark is over the figure, it indicates the interval implied above the figure. Over a 2, it indicates the fourth. Over a $\substack{4\\3}$, it indicates the sixth:

Ex. 435.



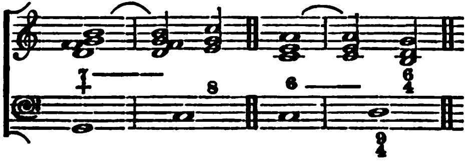
The figure with a stroke aslant it, indicates that the interval is diminished:—

Ex. 436.



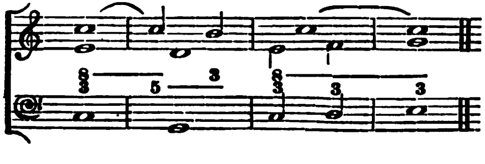
When a line is drawn after the figure, the chord should be prolonged until the following figure:—

Ex. 437.



If the chord contain several figures, and the line be placed after only one of them, no more than the note indicated, must be prolonged:—

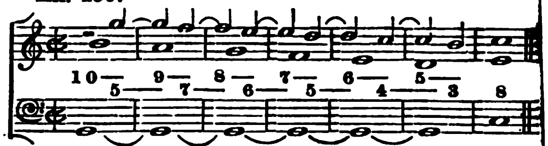
Ex. 438.



The words Tasto solo which are usually placed over a pedal, indicate that no chord is to be played by the right hand.

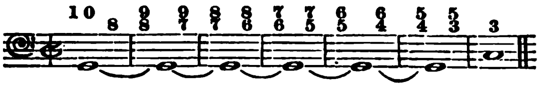
When the pedal is to be figured, the figures should be placed according to the order observed in Harmony:—

Ex. 439.



Instead of lines the figures may be repeated:—

Ex. 440.



Additional Note from the German Edition.

The improved method of figuring, introduced in this work, may be estimated by the following particulars:—

The diminished fifth is marked by a stroke through it ($\cancel{5}$); and the augmented fourth, which is derived from it, by a simple cross prefixed (+4). Catel uses the same sign to mark the chord of the dominant seventh, and its derivatives; viz., $\substack{7\\+}$ instead of $\substack{7\\5\\3}$, or $\substack{7\\3}$, or $\substack{7\\5}$; $\substack{6\\\cancel{5}}$ instead of $\substack{6\\5}$; $\substack{+\\4\\3}$ instead of $\substack{6\\4\\3}$; and $\substack{+\\2}$ instead of $\substack{6\\4\\2}$ or $\substack{4\\2}$. Our author figures the chord of the diminished seventh, $\cancel{7}$, instead of $\substack{\flat 7\\5\\3}$; the derived chord of the fifth and sixth, he figures thus, $+\substack{6\\\cancel{5}}$, instead of $\flat\substack{6\\5}$; the chord of the three-four $+\substack{4\\\flat}$ instead of $\substack{6\\4\\\flat 3}$; and lastly, the chord of the second, +2 instead of $\substack{6\\4\\2}$.

THE END.